State Water Commission
Pre-Commission Meeting
Basement Conference Room (SWC Staff Only)
900 E. Boulevard Ave.
Bismarck, North Dakota
January 27 - 1:00 p.m. CT
A QUORUM OF THE COMMISSION MAY BE PRESENT

Join on your computer or mobile app
Click here to join the meeting
Or call in (audio only)
1-701-328-0950; Passcode: 928048248#

AGENDA

A. Roll Call

B. SWC Secretary Update (no attachments)
1. Agency Strategic Plan
2. Water Development Plan

C. Southwest Pipeline Project
1. REM Reimbursement Request
2. Expansion of Dickinson Water Treatment Plant Request

D. Northwest Area Water Supply
1. Update (no attachment)
2. Interim Water Supply

E. Strategic Governance and Finance Update

F. Flood Control
1. Bottineau County WRD- Stone Creek Lateral B Construction — C
2. Economic Analysis/Cost-Share Policies and Federally Accredited Flood Protection (no attachment)

G. General Water
1. Elm River Joint WRD- Elm River Dams 1 and 2 Improvements — PC

H. Water Supply (Municipal)
1. Portland – Water System Improvements — PC
2. Fargo – Regional Water System Distribution Extensions — PC
3. Minot – NW Minot Residential Watermain Replacement — PC
4. Rugby – Raw Water Line Replacement — PC
5. Grand Forks – Agribusiness Park Raw Water Supply Improvements — PC
6. Riverdale – Raw Water Supply and Gate Valve Improvements — PC
7. Valley City – Watermain Improvement District 59 — C
8. Valley City – 6th Street NW Watermain District 102 — C
9. Jamestown – ER Cross Town Water Supply Repair — C
10. Garrison – Water Supply Treatment and Transmission Line — CI

I. Water Supply (Rural)

1. Walsh RWD – Interconnect with NRWD	PC
2. McLean-Sheridan RWD - System Expansion Phase 2	C
3. McLean-Sheridan RWD – Water Tower Improvements	C
4. Rolette County – Turtle Mountain Public Utilities Thorne Reservoir and Pump Station	C

J. Cost-Share Policy Modifications

PC Pre-Construction
C Construction
L Legislative
CI Cost Increase
O Other

C1

SOUTHWEST WATER AUTHORITY

30 YEARS ANNIVERSARY

Our Vision: People and Business Succeeding with Quality Water Our Mission: Quality Water for Southwest North Dakota

MEMORANDUM

RECEIVED
JAN 10 2022
ND DEPT. OF WATER RESOURCES

To: Andrea Travnicek, Ph.D., Director, DWR

From: Ledeanna O'Shields, CFO/Office Administrator

Subject: **Reimbursement from the Reserve Fund for Replacement and Extraordinary Maintenance**

Date: January 5, 2022

Copy: Sindhuja S. Pillai-Grinolds, P.E., Project Manager, SWC
Jen Murray, Manager/CEO, SWA

Reimbursement from the Replacement and Extraordinary Maintenance Fund is being requested for one item of work.

The IDT AMR replacement work has been completed. The total amount due for the IDT AMR replacement is $823,662.39 and has been paid. This is a budgeted item for the Replacement and Extraordinary Replacement Fund for 2021 and 2022. The amount in the budget is $1,274,035.00 and was previously approved in the budgeting process. A spreadsheet listing the invoices is included with this memorandum. Copies of invoices are available upon request.

The balance in the Reserve Fund for Replacement and Extraordinary Maintenance is $24,854,777.68 as of November 30, 2021.

I respectfully request the SWC approve the IDT AMR replacement to be eligible for reimbursement from the Reserve Fund for Replacement and Extraordinary Maintenance and approve the release of $823,662.39 from this fund at this time.

The SWA Board of Directors took similar action at its December 6, 2021, meeting.

-IDT SATELLITE REPLACEMENT

	SetFlow Units	SKY Units	Total
Units Replaced	$ 575,460.00	$ 75,900.00	$ 651,360.00
Labor	$ 134,925.32	$ 15,926.23	$ 150,851.55
Mileage	$ 10,383.67	$ 1,606.98	$ 11,990.65
Invoices	$ 9,460.19	$ -	$ 9,460.19
TOTAL	**$ 730,229.18**	**$ 93,433.21**	**$ 823,662.39**

Invoice Date	Vendor	Invoice Number	Amount
2/28/2020	Border States	919548432	$ 61.58
3/5/2020	Graybar	234891439	$ 1,056.98
3/6/2020	Border States	919590089	$ 67.71
3/16/2020	Border States	919639443	$ 27.08
3/17/2020	Border States	919647383	$ 45.98
3/17/2020	Dakota Supply Group	8713	$ 917.53
3/12/2020	Graybar	9315047962	$ 115.03
3/25/2020	Border States	919696230	$ 330.33
3/25/2020	Menards	32520	$ 40.11
3/25/2020	Menards	656	$ 7.58
3/31/2020	Border States	919726382	$ 1,034.82
4/3/2020	J&M Hardware	85	$ 11.49
4/30/2020	Marshall Lumber Co.	53347	$ 25.27
5/1/2020	Dakota Supply Group	130727	$ 39.00
5/7/2020	Border States	919932404	$ 56.41
5/4/2020	Menards	5420	$ 118.18
5/6/2020	Menards	5620	$ 266.64
5/4/2020	Menards	8420	$ 29.44
5/8/2020	Dakota Supply Group	145248	$ 11.88
5/6/2020	Hazen Hardware Hank	217127	$ 12.16
5/10/2020	Menards	51020	$ 17.72
6/1/2020	Dakota Supply Group	145373	$ 114.69
6/23/2020	Runnings	2542236	$ 13.97
6/24/2020	Border States	920196222	$ 25.38
7/9/2020	QED	5438324	$ 1,762.14
8/20/2020	Runnings	2559384	$ 10.19
9/25/2020	QED	5515171	$ 1,836.71
12/7/2020	QED	5573272	$ 101.92
4/27/2021	QED	5678663	$ 1,302.27
			$ 9,460.19

SOUTHWEST WATER AUTHORITY

30 YEARS ANNIVERSARY

January 18, 2022

Andrea Travnicek, Ph.D., Director
North Dakota Department of Water Resources
900 E. Boulevard Avenue
Bismarck, ND 58505

RE: Dickinson Water Treatment Plant Assessment and Capacity Migration

Dear Andrea:

I am writing to request the North Dakota State Water Commission (SWC) and the Department of Water Resources (DWR) start the expansion of the Southwest Pipeline Project's (SWPP) Southwest Water Treatment Plant to its ultimate capacity of 18 million gallons per day (MGD) by beginning the design of the migration and expansion, procuring the membranes and other equipment using the 2021-2023 biennium funding included under Capital Assets for the SWPP.

The Dickinson Water Treatment Plant (DWTP) provides treated water to the SWPP. The SWPP is the sole source of treated drinking water delivered to 33 communities, numerous bulk customers, and more than 7,400 rural water customers in southwest North Dakota. The SWPP is also the sole source of supply for Perkins County Rural Water System in South Dakota and provides a supplementary supply for the Missouri West Water System.

In the early planning and design, the treatment facilities to serve the SWPP were to be constructed near the intake structure in Mercer County. The Legislature authorized construction of the SWPP in 1983, selecting "Plan B" under which the project would supply 150 percent of design average daily water demand for the cities in the SWPP. Each city would need to maintain their existing supply and use it to meet their peak needs not met by the SWPP. Dickinson representatives realized that intermittent use of their surface water treatment plant is highly inefficient and impractical and proposed the use of their WTP as a permanent part of the system. Under this scheme, the water to be delivered south and west of Dickinson would be treated at the DWTP. Smaller plants would be located at selected sites to treat water for locations between the source and Dickinson.

The SWC was to decide whether a single new plant would be constructed for all project water, or whether the multiple plant scheme would be used. To gain experience to make the decision, the SWC adopted a plan that would have raw water delivered to Dickinson, treat it there, and deliver it to regions beyond. Based on this experience, a selection of the treatment alternative would be made before serving the areas between Dickinson and Lake Sakakawea.

Construction began on the SWPP in 1986, the timing of which could not have been more critical. There was an immediate need for the water supply from the SWPP. In the late 1980's, southwest North Dakota experienced a severe drought and Dickinson was at risk of running out of water from Lake Patterson. The city of Dickinson actually installed a pipeline from the third cell of the lagoon back to the Heart River at the Dickinson Dam so the lagoon water could be accessed at the plant.

In June of 1990 notices of violation of primary standards of the Safe Drinking Water Act (SDWA) were issued by the United States Environmental Protection Agency (EPA) to the cities of Golden Valley, Dodge, Halliday, Dunn Center, Taylor, Gladstone, Regent, and Mott. These communities operated water systems that contained excessive fluoride. All of them except Dunn Center, which immediately requested one, had water service contracts with the SWPP. The cities, working with the ND Department of Health and the SWC, requested EPA withhold enforcement to allow service by the SWPP. EPA agreed, but service to these cities was to be given high priority. Five of the eight cities are between the source and Dickinson. This meant the plan to serve the regions beyond Dickinson first had to be changed. It also meant that the decision on the location of the treatment plant had to be made.

The SWC selected a committee to evaluate the DWTP, to identify and study the alternatives, and to make a recommendation to the full SWC. This committee found that with modifications to increase capacity to 12MGD, the existing DWTP was capable of treating all project water. This was in part due to the fact that the population growth assumed in the original SWPP plan had not occurred. It further found that upgrading the plant to 12 MGD and building the piping systems to convey the water to the northern cities should cost approximately $9 million, providing the line was sized only to meet the known demands in that area. The expected cost of the new WTP at the original site near the intake was $16 million. The SWC selected the existing treatment plant at Dickinson to treat project water. The water treatment plant in Dickinson was built in 1951 with the newest part of the main structure and the electrical switchgear constructed in 1966 making it 25-40 years old at the time of this decision. Had a new plant been constructed it would be 30 years old today.

By October of 1991, the 85 miles of transmission pipeline, three pump stations, and three reservoirs were in place to bring raw water from Lake Sakakawea to Dickinson and service to Dickinson was turned on in November 1991. By December 1994, SWPP water was delivered to all the cities in violation of SDWA standards. An agreement was negotiated with the city of Dickinson, and executed in December 1991, for the SWPP to contract with the city to make any needed improvements to the city's WTP, and directly serve the city of Dickinson and its other contracted cities with treated water. Modifications to the DWTP were completed in 1996 to treat Lake Sakakawea water and double capacity from 6 MGD to 12 MGD.

In 1999, an on-site review of the DWTP was conducted as part of the negotiations associated with the pending transfer of treatment operations and maintenance responsibilities from the city of Dickinson to SWA. In 2000, SWA and the SWC entered into a new agreement where the operation, maintenance, and repair of the DWTP became the responsibility of the SWC and SWA.

In 2008, SWA directed Bartlett & West to conduct a review of the DWTP's structural condition and electrical, mechanical, and water processing systems. Results of the assessment showed several deficiencies. The age of the plant along with expansion challenges indicated it was unlikely the plant could continue to provide the needed supply of treated water for many more years without major refurbishments of equipment, structural repairs and other improvements. Priority lists of immediate, secondary, and long-term deficiencies and needs to keep the facility functioning were developed and several items from these lists were completed, including electrical upgrades and basin repairs and coating.

In 2012, the SWC authorized Bartlett & West to develop an engineering report examining alternatives for the long-term future of the DWTP as a source of potable water for the SWPP. It was known all along there was a need for more capacity to serve the population assumed in the original plan. The projected treatment capacity need from the DWTP is 18 MGD. The engineering report considered several alternatives. The report concluded that expanding the existing 12 MGD DWTP to 18 MGD was not viable and building a phased facility with an initial capacity of 6 MGD on the property adjacent to the existing DWTP site was the most cost-effective, long-term solution to add capacity.

In 2013, the decision was made to construct the new 6 MGD Southwest Water Treatment Plant (SWTP) with the goal of future expansion to 18 MGD. This decision would allow eventual migration of treatment capacity to the SWTP and abandonment of the existing DWTP. The SWTP came online in 2018. Although the SWTP has reduced some of the stress on the DWTP, the DWTP remains the SWPP's workhorse and continues to treat the bulk of the water for the SWPP. Peak day capacity needs from the water treatment plants in Dickinson range from 8.8 to 10.4 MGD, with 6 MGD allocated to the city of Dickinson. In the event of a failure at the DWTP, the 6 MGD SWTP would not be able to meet the peak needs of those we serve.

Parts of the DWTP are now 56-71 years old. Much of the DWTP equipment that is considered original is operating at or beyond its intended useful life which increases the risk of malfunction or a catastrophic failure. The SWA WTP operators diligently perform preventative maintenance; however, it is becoming increasingly frustrating and expensive to repair, retrofit and maintain much of the equipment. Operating this equipment beyond useful life is considered deferred maintenance as a result of the 2013 decision to construct the SWTP. The loss or failure of any critical piece of the treatment trains at the DWTP would significantly impact the SWPP's ability to deliver its award-winning, quality water throughout southwestern North Dakota.

The structural integrity of the DWTP is a concern. The brick-and-mortar façade has cracking throughout the facility which grows larger with exposure to moisture and the natural freeze-thaw cycle. The exterior steel column foundations have notable to severe deterioration. Additionally, the plant does not conform to existing North Dakota Department of Environmental Quality treatment standards such as "filter to waste" capability. Any extensive refurbishment would trigger regulatory review and enforcement of standards in many areas. Asbestos was a common building material in 1966 and may be present in the plaster ceilings and flooring tile. Any renovations will require asbestos testing and abatement.

The ability to treat adequate quantities of quality water is a critical function of the SWPP. Although refurbishment and improvements to the DWTP are an option, this option was not chosen in 2013 as a cost-effective investment. Even after improvements, the DWTP would still largely be a 56-71-year-old facility. Migration of treatment capacity to the SWTP and abandonment of the DWTP is consistent with the 2013 decision to construct the 6 MGD SWTP with the ability for expansion to 18 MGD, allowing for eventual abandonment of the existing DWTP.

In 2021, the DWR authorized an assessment of the current state of the DWTP to develop a timeline for expansion of the SWTP and migration of capacity. The assessment concluded migration should take place when funding is available.

Options for migration and expansion include:

1. Migrating some treatment processes, such as the softening or filtration processes, to the SWTP. It would be expensive and impractical to install the new piping needed between the two facilities as an interim measure.

2. Incremental migration through two phased expansions of the SWTP. A six-million-gallon expansion could be constructed to increase the SWTP capacity to 12 MGD, with another six-million-gallon expansion to 18 MGD occurring at a later date.

3. Incremental migration through expansion of the SWTP building to the size required for the full 18 MGD capacity under one contract with a later contract to install treatment equipment and piping for the final 6MGD phase. This option may avoid a situation where a second expansion is undertaken while under duress due to failure of critical equipment at the DWTP. The incremental migration options would present some cost savings initially; however, it will be more expensive in the long run to construct a 12 MGD expansion in two phases instead of one.

4. Expansion of the SWTP from a 6 MGD facility to an 18 MGD facility under one contract and abandonment of the DWTP. The cost estimated for an expansion to the ultimate capacity of 18 MGD is $90,209,000.

The expansion of the SWTP and migration of capacity has been included in the SWPP future funding needs in the SWC Water Development Plan since 2019. The 67th Legislative Assembly approved buckets for funding in the current biennium via House Bill 2020. The SWPP is included under the Capital Assets bucket. During the Legislative Session, SWA requested $42.5 million in funding for the 2021-2023 biennium for the SWPP. Design, equipment and membrane procurement for the expansion of the SWTP were included in this request for $7,650,000. This funding is currently available. SWA respectfully requests your consideration in the expansion of the SWTP from a 6 MGD facility to an 18 MGD facility to migrate capacity from the DWTP. This would be a cost-effective, and wise long-term solution for the SWPP, the communities, rural customers, and additional water systems we serve. Moving forward in a timely fashion would be a benefit and should start now.

Thank you for your continued support of the SWPP and SWA. Quality water for southwest North Dakota would not be possible without the collaborative efforts of the State Water Commission, the Department of Water Resources and Southwest Water Authority. Quality of life and economic development are possible because of our teamwork and dedication to those we serve.

Sincerely,

Jen Murray
Manager/CEO
Southwest Water Authority

Enclosures: Southwest Water Authority 2021-2023 Funding Request
Treatment Facilities Aerial View, Location of WTP's and Expansion Site

Electronic Copy: Sindhuja S. Pillai-Grinolds, P.E., Project Manager, DWR
Tyson Decker, P.E., Project Manager, Bartlett & West/AECOM
Grace Rixen, Water Treatment Manager, SWA

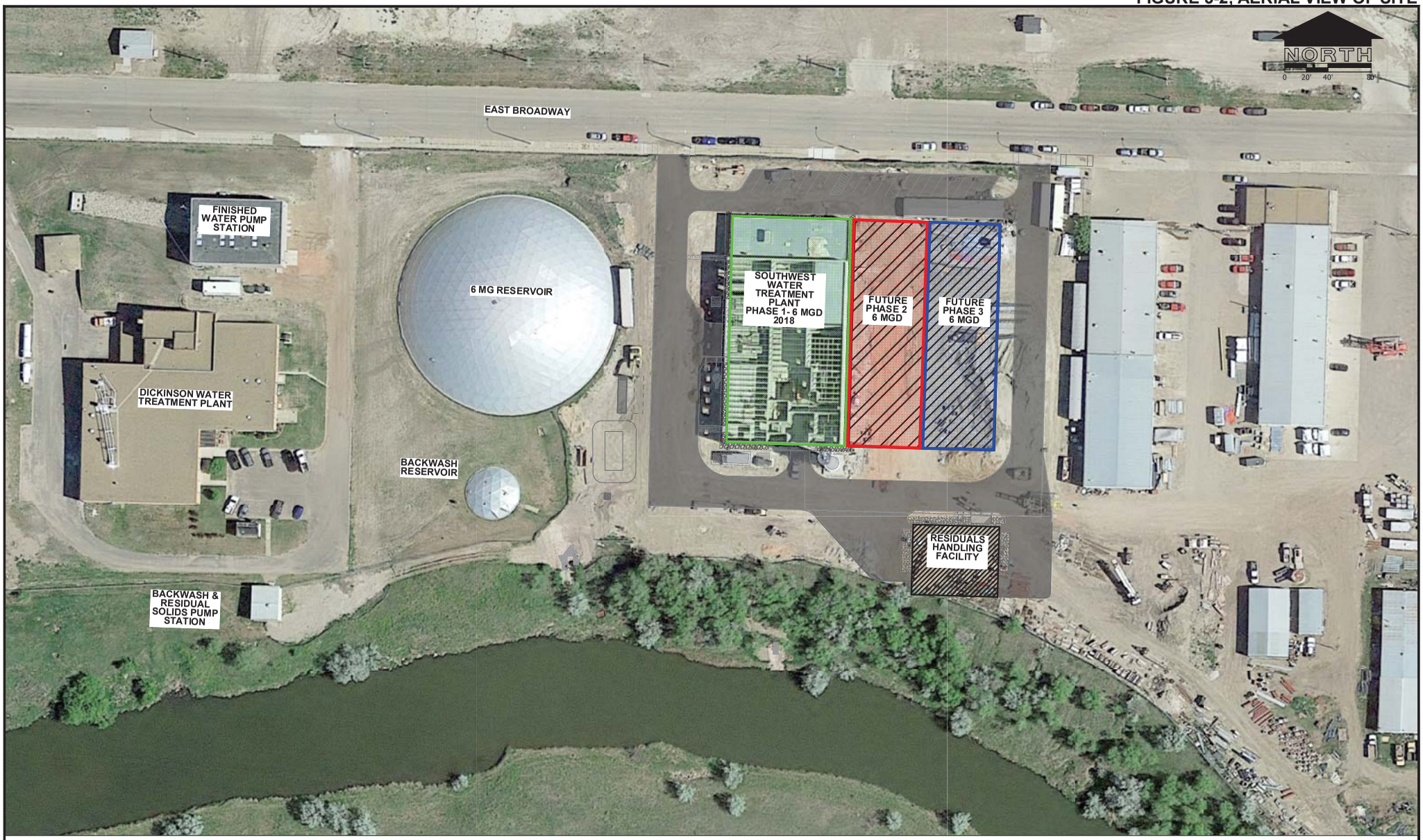
Southwest Pipeline Project
2021-2023 Biennium Funding

Contract	Description	Detail	Estimated Project Cost
1-1B/1-2B	Supplementary Intake Pump Station and Intake Pump Station Upgrade	Intake pump station building, miscellaneous piping, appurtenences and SCADA	$9,300,000
2-7D*	Main Transmission Line Between Ray Christensen Pump Station and Davis Buttes Reservoirs	6 miles of 12" parallelled main transmission line	$1,900,000
2-3I*	Main Transmission Line Between Ray Christensen Pump Station and Belfield Reservoirs	8 miles of 16" parallelled main transmision line	$4,500,000
2-5C*	Main Transmission Line Between Ray Christensen Pump Station and New England Reservoirs	6 miles of 12" parallelled main transmission line	$1,900,000
	Strategic Hydraulic Improvements	Distribution System Expansion to serve Subsequent Customers	$3,500,000
	Rural Service Area	Development and Design of Under-Served Rural Service Areas	$9,000,000
3-3A	12 Million Gallon Per Day of Southwest Water Treatment Plant Expansion	Design, Equipment and Membrane Procurement	$7,650,000
	Metallic Pipeline Assessment and Repair	Ductile Iron Pipe (DIP) Assessment Systemwide	$4,750,000
	Total Estimated Project Cost		**$42,500,000**

* Delayed voluntarily in the 2019-2021 biennium due to reduced revenues to the Resources Trust Fund

Photo 2-2: Dickinson WTP from NE, Background

FIGURE 3-2, AERIAL VIEW OF SITE



Bartlett&West | AECOM

NORTH Dakota | Water Resources
Be Legendary.

TO: State Water Commission subcommittee members
FROM: Andrea Travnicek, Ph.D., Secretary
SUBJECT: NAWS Interim Water Supply
DATE: January 19, 2022

The NAWS project has been serving NAWS water service contract users since 2008 under the attached interim water supply agreement with Minot. Water from Minot's groundwater sources is purchased by NAWS as treated water and served to Burlington/West River, Berthold, Upper Souris Water District, Kenmare, Mohall, Sherwood, and All Seasons Water Users District under this agreement. Water transmitted through NAWS infrastructure to connections for Minot, the Minot Air Force Base, and North Prairie Rural Water is under water supply contracts with Minot as part of its own distribution system paying the NAWS project a separate rate for O&M excluding treatment fees but including REM.

The interim water supply agreement was executed in 2008 based on average day demands for the NAWS contract customers and Minot's ability to produce additional water beyond their own demand, which is currently based on their water treatment capacity (~13 million gallons per day (MGD)). The agreement originally included 773,600 gallons per day for NAWS contract customers. Previous conversations with Minot had indicated an additional 1 million gallons per day could be available to NAWS customers upon completion of the Phase II Improvements to the Minot Water Treament Plant based on the assumption that Minot's wellfields would be able to produce 15-16 MGD.

However, there have been complications that have arisen in recent years regarding the ability of Minot's wellfields to produce raw water. Nearly all the wells in the Minot aquifer are producing less than what they were producing prior to the flood of 2011 and wells in both the Minot and Sundre aquifer have been requiring much higher maintenance than in years past. Minot's total raw water production fell to 9 MGD this past summer when multiple wells had service interruptions which lead to rationing. Repairs were made, however, Well C failed again recently. The failure was unexpected because the well was rebuilt only three years ago. Wells C and D in the Sundre aquifer represent about half of Minot's raw water production.

While efforts are underway to update the Interim Water Supply Agreement, Minot has raised concerns about the ability of the wellfields to produce additional water to serve more NAWS customers. The DWR and Minot agree that Minot's raw water capacity needs to be firmed up, to meet both current and future demands, until lake water is available and to serve as a redundant and conjunctive water supply once the project is completed. Discussion between

DWR staff and Minot representatives have been held regarding installation of an additional well in the Sundre aquifer between wells C and D for that very purpose. Recent developments necessitate the need to accelerate the schedule.

The NAWS Advisory Committee moved that the State Water Commission work with Minot to firm up the capacity of the wellfields at their January 13, 2022, meeting. We believe the best path forward would be for Minot to take the lead and be the contracting agency. This effort would be considered a NAWS project as it is critical to both the interim and long-term operation of the project and therefore funded at the same 65/35 split as the rest of the project. The matter was before the Minot City Council January 18, 2022. Estimated project cost is roughly $750,000.

Multiple alternatives exist for funding source and mechanics of reimbursement. Capital assets funding from the 21-23 biennium or carryover from the 19-21 biennium should be sufficient to cover the additional expense or the use REM funds could be justified in this case.

As of December 31, 2021

E

	Federal (Including MR&I)	State	Local	Cost-Share State	Cost-Share State & Federal	Loan	Loan Repayment (Principal)	Loan Repayment (Interest)	Capital Repayment
SWPP*	$121,900,000	$287,660,000		70%	100%				$84,210,000
NAWS**	$146,400,000	$65,000,000	$72,000,000	23%	75%				
WAWS***		$227,767,000	$164,465,000	58%	58%	$153,209,245	$44,715,061	$19,953,386	
RRVWSP		$117,400,000	$27,693,000	81%	81%				
TOTAL	$268,300,000	$697,827,000	$264,158,000						

* Capital Repayment includes $19.25M in bond payments and $5.5M from Perkins County, SD.

** The SWC has approved $112.2M in Federal MR&I funding to date. It is anticipated that the full $146.4M will be covered with Federal MR&I funds.

*** HB 1431 included $74.5M in debt service, which was applied to the state share.

Waiting on update from GDCD

F1

20351 - Stone Creek Lateral B

Application Details

Funding Opportunity:
19214-2022 Infrastructure Request

Funding Opportunity Due Date: Dec 31, 2022 3:00 PM

Program Area:
Funding for Infrastructure in ND - FIND

Status: Under Review

Stage: Final Application

Initial Submit Date: Jan 7, 2022 4:13 PM

Initially Submitted By: Clifford Issendorf

Last Submit Date:

Last Submitted By:

Contact Information

Primary Contact Information

Active User*: Yes

Type: External User

Name: Salutation Clifford
First Name
Middle Name Issendorf
Last Name

Title:
Bottineau County WRD Chairman

Email*: bcwrd@outlook.com

Address*: PO Box 268

Organization Information

Status*: Approved

Name*: Bottineau County WRD

Organization Type*: County Government

Tax Id:

Organization Website:

Address*: PO Box 268

Bottineau North Dakota
City State/Province

58318
Postal Code/Zip

Phone*: 701-400-5853 Ext.
Phone
###-###-####

Fax: ###-###-####

Comments:

Bottineau North Dakota
City State/Province

58318-____
Postal Code/Zip

Phone*: 701-400-5853 Ext.
###-###-####

Fax: ###-###-####

Benefactor:

Vendor ID:

PeopleSoft Supplier ID:

Comments:

Location Code:

SAM.gov Entity ID:

SAM.gov Name:

SAM.gov Entity ID Expiration Date:

State Issued ID:

Category #:

Year Begin:

Year Closed:

NCES#:

Restricted Indirect Cost Rate: 0.0%

Unrestricted Indirect Cost Rate: 0.0%

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study Name*: Stone Creek Lateral B

Sponsor(s)*: Bottineau County Water Resource District

County*: Bottineau

City*: Bottineau

Description of Request*: New

If Study, What Type: Other

If Project/Program, What Type: Rural Flood Control

Jurisdictions/Stakeholders Involved*:

Bottineau County Water Resource District Bottineau County Highway Department Elysian, Stone Creek, and Whitby Township

Specific Needs Addressed By the Project, Program or Study*:

The project will provide improved conveyance to reduce inundation to adjacent crop land and roadways.
Description of Problem or Need and How Project Addresses that Problem or Need.

Description of Problem*:

The project is within the floodplain of old glacier lake souris. The area is extremely flat gradient which results in a significant area of overland flooding. Spring snow melt and large rain events delay planting, crop losses, delayed harvesting as a result of standing water. The project also benefits a State Highway upstream of the project during high runoff events.

For this project,

Choose City, County or Water District*: Water District

What is the Current Estimated Population?*:	50

For this project,

What is the Benefited Population?*:	50
Has Feasibility Study Been Completed?*:	No
Has Engineering Design Been Completed?*:	Yes
Have Assessment Districts Been Formed?*:	Yes
Date Formed:	05/21/2021
Have Land or Easements Been Acquired?*:	Ongoing
Has Sediment Analysis For Reconstruction Of An Existing Drain Been Completed?*:	N/A
Extraterritorial Jurisdiction?*:	No
Have You Applied For Any Federal Permits?*:	Yes

If Yes or Ongoing, Please Explain (include type/number):

The USACE 404 permit has been approved.

Have You Been approved for any Federal Permits?:	Yes

If Yes or Ongoing, Please Explain (include type/number):

The USACE 404 permit has been approved.

Have You Applied for any State Permits?*: Yes

If Yes or Ongoing, Please Explain (include type/number):

Surface Drain Permit

Have You Been Approved for any State Permits?: Yes

If Yes or Ongoing, Please Explain (include type/number):

Surface Drain Permit No. 5577 was approved on 7-19-2021

Have You Applied for any Local Permits?*: N/A

If Yes or Ongoing, Please Explain (include type/number):

Briefly explain the level of review the Project/Program/Study has undergone.

Level Review*:

Design

Do You Expect Any Obstacles To Implementation (i.e. problems with land acquisition, permits, funding, local opposition, environmental concerns, etc.)?

Obstacles*: No

Have you received, or do you anticipate receiving federal funding?

Federal Funding*: No

Implementation Timelines

Study*: /0000
Month/Year (00/0000)

Design*: 11/2021
Month/Year (00/0000)

Bid*: 04/2022
Month/Year (00/0000)

Construction Start*: 07/2022
Month/Year (00/0000)

Construction Completion*: 11/2022
Month/Year (00/0000)

Explain Additional Timeline Issues*:

N/A

Certification

Submitted by*: Clifford Issendorf 01/07/2022
First Name Last Name Date

Address*: PO Box 268
Address Line 1

Address Line 2

Bottineau North Dakota 58318-0000
City State Zip Code

Telephone Number*: 701-228-4070

Sponsor Email*: bcwrd@outlook.com

Consulting Engineer*: Apex Engineering Group

Engineer Telephone Number*: 701-323-3950

Engineer Email*: jennifer.malloy@apexenggroup.com

This section needs to be completed by the project sponsor.
I certify that, to the best of my knowledge, the provided information is true and accurate.

Certify*: Yes

Authorized Individual*: Clifford Issendorf 01/07/2022
First Name Last Name Date

Documentation

Documentation

Project Specific Map
(Including an inset map of location within state.)
CLICK HERE **to see examples.**

Project Specific Map*: 2_Stone Creek Lateral B Location Map.pdf

Are You Seeking Department of Water Resources Cost-Share?*:	Yes

CLICK HERE **for SFN 61801 Delineation of Costs.**

Delineation of Costs SFN 61801:	3_detailed_project_costs_SCLatB_Construction.xlsx
Type of Request:	Construction
Signed Plans and Specifications For Bidding:	1_Construction Plans.pdf
Water Supply Projects?:	No
Rural Flood Control?:	Yes
Approved Drainage Permit:	4_Surface Drain Permit No.5577_signed.pdf
Results Of Positive Assessment Vote:	5_Certificate of Ballot Tabulation - Signed.pdf
Drain Reconstructions?:	No
Flood Recovery Property Acquisition?:	No
Community Flood Control, Rural Flood Control, Bank Stabilization, or Snag & Clear Project With Total Cost of $200,000 or More?:	Yes

CLICK HERE **for Economic Analysis Instructions.**

Economic Analysis:	6_StoneCrkLatB-EA-2022-1-7.xlsx
Feasibility/Engineering Study for the Proposed Project or Other Applicable Documents:	No
Engineering Total Cost of $35,000 or More?:	Yes
Engineering Selection Documentation:	

7_Cover Letter Garland Erbele w_SWC Engineering Selection Process Report.pdf

Sources

Funding Amount Requested

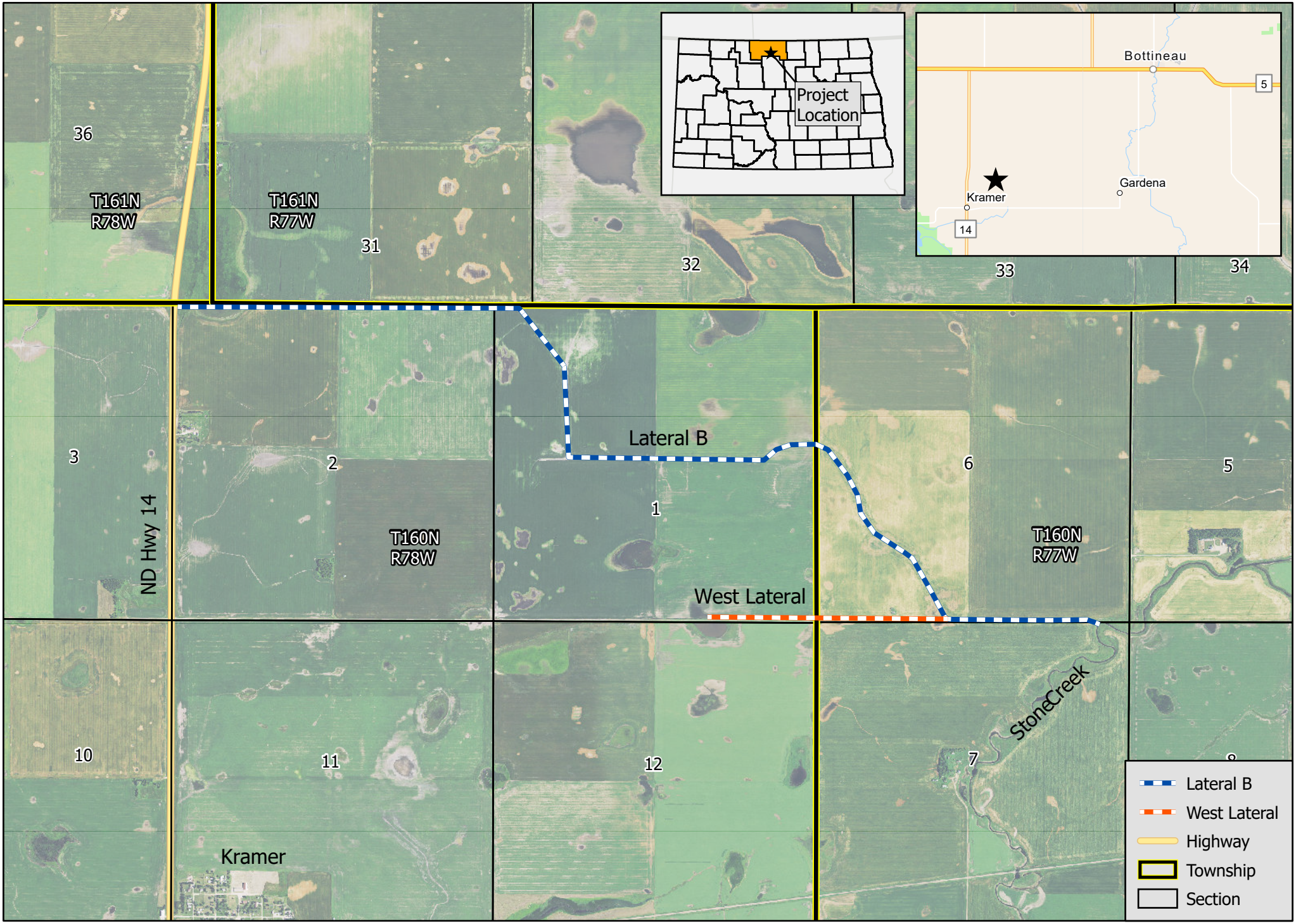
State FY1	State FY2	Beyond State FY2	Total Cost Source	Type	Term	Interest Rate
$157,500.00	$0.00	$0.00	$157,500.00		0.00	0.00
$157,500.00	**$0.00**	**$0.00**	**$157,500.00**			

Other Funding Sources

Type	Source	Grant or Loan	State FY1	State FY2	Beyond State FY2	Total Other Sources
Local	Bottineau County Highway Department	N/A	$66,000.00	$0.00	$0.00	$66,000.00
Local	Assessment District	N/A	$192,583.00	$0.00	$0.00	$192,583.00
			$258,583.00	**$0.00**	**$0.00**	**$258,583.00**

Project Total

Current Requested Amount:	$157,500.00
Other Funding Sources:	$258,583.00
Total Project:	$416,083.00



Apex Engineering Group

Stone Creek Lateral B
Location Map

DELINEATION OF COSTS
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
PLANNING AND EDUCATION
SFN 61801 (10/2021)

DWR Date Received : Month Day, Year

Project:	Stone Creek Lateral B
Sponsor:	Bottineau County Water Resource District
Contact:	Clifford Issendorf, Chairman
Phone:	701-228-4070
Engineer:	Jennifer Malloy, Apex Engineering Group
Phone:	701-323-3950

Total Cost :	$ 416,083
Ineligible Cost :	$ 66,000
Eligible Cost :	$ 350,083
Local Cost :	$ 258,583

Date: January 7, 2022

	Cost-Share $
	$ 157,500
Preconstruction :	$ -
Construction :	$ 187,237

Project Type:	**Cost-share %**
Rural Flood Control - Drains, Channel, Diversion	45%

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share $ *
		Construction Costs						
1	1.3%	Mobilization	1	LS	5,000.00	$ 5,000	45%	$ 2,250
2	19.9%	Stripping Soil	26000	CY	3.00	$ 78,000	45%	$ 35,100
3	26.9%	Common Excavation	35100	CY	3.00	$ 105,300	45%	$ 47,385
4	22.4%	Spoil Leveling	35100	CY	2.50	$ 87,750	45%	$ 39,488
5	2.5%	Seeding	16	AC	600.00	$ 9,600	45%	$ 4,320
6	0.9%	Slope Flattening	1.2	MILE	3,000.00	$ 3,600	45%	$ 1,620
7	2.1%	18" CSP	134	LF	60.00	$ 8,040	45%	$ 3,618
8	4.4%	24" CSP	248	LF	70.00	$ 17,360	45%	$ 7,812
9	5.9%	36" CSP	210	LF	110.00	$ 23,100	45%	$ 10,395
10	1.4%	49"X33" CSP	44	LF	120.00	$ 5,280	45%	$ 2,376
11	1.3%	18" Flap Gate	1	EA	5,000.00	$ 5,000	45%	$ 2,250
12	1.9%	36" Control Gate	1	EA	7,500.00	$ 7,500	45%	$ 3,375
13	0.0%		0		-	$ -	45%	$ -
14	0.0%		0		-	$ -	45%	$ -
15	0.0%		0		-	$ -	45%	$ -
16	0.0%		0		-	$ -	45%	$ -
17	0.0%		0		-	$ -	45%	$ -
18	0.0%		0		-	$ -	45%	$ -
19	0.0%		0		-	$ -	45%	$ -
20	0.0%		0		-	$ -	45%	$ -
21	0.0%		0		-	$ -	45%	$ -
22	0.0%		0		-	$ -	45%	$ -
23	0.0%		0		-	$ -	45%	$ -
24	0.0%		0		-	$ -	45%	$ -
25	0.0%		0		-	$ -	45%	$ -
26	0.0%		0		-	$ -	45%	$ -
		Construction Sub-Total				$ 355,530	45%	$ 159,989
	10.0%	**Contingency**				$ 35,553	45%	$ 15,999
	94.0%	**Construction Total**				$ 391,083	45%	$ 175,987
		Preconstruction Costs						
27	0.0%		0		-	$ -	45%	$ -
28	0.0%		0		-	$ -	45%	$ -
29	0.0%		0		-	$ -	45%	$ -
30	0.0%		0		-	$ -	45%	$ -
31	0.0%		0		-	$ -	45%	$ -
	0.0%	**Preconstruction Total**				$ -	45%	$ -
		Construction Engineering Costs						
32	6.4%	Construction Contract Management	1	NA	25,000.00	$ 25,000	45%	$ 11,250
33	0.0%		0		-	$ -	45%	$ -
34	0.0%		0		-	$ -	45%	$ -
35	0.0%		0		-	$ -	45%	$ -
36	0.0%		0		-	$ -	45%	$ -
	6.0%	**Construction Engineering Total**				$ 25,000	45%	$ 11,250
		Other Eligible Costs						
37	0.0%		0		-	$ -	45%	$ -
38	0.0%		0		-	$ -	45%	$ -
39	0.0%		0		-	$ -	45%	$ -
40	0.0%		0		-	$ -	45%	$ -
41	0.0%		0		-	$ -	45%	$ -
	0.0%	**Other Eligible Total**				$ -	45%	$ -
		In-eligible Costs						
42	0.0%		0		-	$ -	0%	$ -
43	0.0%		0		-	$ -	0%	$ -
44	0.0%		0		-	$ -	0%	$ -
45	0.0%		0		-	$ -	0%	$ -
	0.0%	**Other Ineligible Total**				$ -	0%	$ -
	100.0%				**Total**	$ 416,083		
					Eligible Total	$ 416,083	45%	$ 187,237
					Federal or State Funds That Supplant Costs	$ 66,000		
					Eligible Cost Total	$ 350,083	45%	$ 157,537

* The Cost-share estimate is purely for planning and informational purposes only and does not, in any way, guarantee a financial commitment to any degree, from the State Water Commission.

Economic Analysis Review

Project Title:	Stone Creek Lateral B	Date:	January 17, 2022
Description:	Construct legal drain to mitigate overland flooding		
Project Type:			

Project Overview

Project Area:	2-3 miles NE of Kramer, ND
County	Bottineau
City	Kramer
Agricultural Acres Impacted	310
Urban	No
Population Served	50

Cost	Construction	O & M	Total
Nominal	$521,083	$3,000/yr	$674,083
PV (50 years)	$521,083	$80,702	$601,785
$ / Capita	$10,421.66	$1,614.04	$12,035.70
$ / Acre	$1,680.91	$260.33	$1,941.24

Inputs

Protection Level:	1:100
Consumptive and Non-Consumptive Benefits:	
NA	
Detours:	
NA	

Results

Project Performance Metrics	Present Value	Average Annual	Notes
Benefit-to-Cost Ratio	1.01		
Net Benefits	$5,306	$187	
Internal Rate of Return (IRR)	3%		
Payback Year	50		

Average Annual Damages

Rural

	Difference	Without	With
Cropland	9,033	9,642	610
Pasture	0	0	0
$	9,033	9,642	610

Urban

	Difference	Without	With
Damage to structures at risk	$0	$0	$0
Value of other flood costs	$19	$19	

Model Function

The economic model appears to have functioned properly. The results are deemed to be reliable and repeatable with the inputs provided by the project sponsor. Benefits are reflected in linear feet of erosion and sediment removal as a result of erosion.

Explanation of Results

The benefits of this project are predominately agricultural. This project has a B/C ratio approximately equal to 1. The average annual benefit of the project is estimated to be $187 with a total net benefit over 50 years of $5,306.

Population and Trend

	Year		Annual Population Growth Rate	Average Annual Population Increase/Decrease
	2010	2019		
ND Census: Dept. of Commerce				0

Other Comments

Glossary

PV - Present Value of all future costs or benefits adjusted to the current dollar value using an interest rate factor.

1:100 - The probability of an event. Commonly referred to as a one in one hundred year event. It is more accurately a one in one hundred chance of an event of a specific magnitude happening each individual year.

Nominal - Refers to the dollars spent or benefitted without adjusting for the time value of money or inflation.

Non-consumptive Benefits - These occur when an individual's use does not dimish the supply for other consumers of the benefit (*e.g.* bird watching).

Damage To Structures At Risk - Is the segregation of flood costs related to physical damage to structures.

Value of Other Flood Costs - All other costs associated with an event (*e.g.* flood fighting operations, time delays, relocations, etc).

Version: Version 1.2021-6

G1

20441 - Elm River Dams 1&2 Improvements

Application Details

Funding Opportunity:

19214-2022 Infrastructure Request

Funding Opportunity Due Date: Dec 31, 2022 3:00 PM

Program Area:

Funding for Infrastructure in ND - FIND

Status: Under Review

Stage: Final Application

Initial Submit Date: Jan 10, 2022 4:23 PM

Initially Submitted By: Jessica Spaeth

Last Submit Date:

Last Submitted By:

Contact Information

Primary Contact Information

Active User*: Yes

Type: External User

Name: Ms. (Salutation) Jessica (First Name)

Middle Name Spaeth (Last Name)

Title: Secretary/Treasurer

Email*: tcwrd@co.traill.nd.us

Address*: 102 1st St SW

Organization Information

Status*: Approved

Name*: Elm River Joint WRD

Organization Type*: County Government

Tax Id:

Organization Website:

Address*: 102 1st St SW

Hillsboro North Dakota
City State/Province

58045-4412
Postal Code/Zip

Phone*: 701-636-5812 Ext.
Phone
###-###-####

Fax: ###-###-####

Comments:

Hillsboro North Dakota
City State/Province

58045-4412
Postal Code/Zip

Phone*: 701-636-5812 Ext.
###-###-####

Fax: ###-###-####

Benefactor:

Vendor ID:

PeopleSoft Supplier ID:

Comments:

Location Code:

SAM.gov Entity ID:

SAM.gov Name:

SAM.gov Entity ID Expiration Date:

State Issued ID:

Category #:

Year Begin:

Year Closed:

NCES#:

Restricted Indirect Cost Rate: 0.0%

Unrestricted Indirect Cost Rate: 0.0%

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study Name*: Elm River Dams 1&2 Improvements

Sponsor(s)*: Elm River Join WRD

County*: Multiple

City*: Galesburg

Description of Request*: New

If Study, What Type:

If Project/Program, What Type: DAM Safety/EAP

Jurisdictions/Stakeholders Involved*:

Red River Joint Water Resource District, Elm River Joint Water Resource District, North Cass WRD, Steele County WRD, Traill County Water Resource District, Cass County, Traill County & Steele County.

Specific Needs Addressed By the Project, Program or Study*:

The WRD recently completed a study of two dam embankments and spillway structures within the Elm River watershed have been determined to be in disrepair or insufficiently sized according to current North Dakota Dam Safety Standards. The WRD selected one alternative for each dam which they have identified as the project. This project will include the final design hydraulics, geotechnical and structural evaluation of the selected alternatives.

Description of Problem or Need and How Project Addresses that Problem or Need.

Description of Problem*:

The Elm River Watershed has experienced significant flooding, primarily from spring runoff events, in recent years and Elm River Dam No. 1 saw extended periods of time where the earthen emergency spillway was overtopped. It has been determined that the Dam #1 is undersized and does not meet current dam safety standards for the watershed it controls. The project will move selected alternatives from the watershed study and will proceed towards final design and permitting.

For this project,

Choose City, County or Water District*:	Water District
What is the Current Estimated Population?*:	136

For this project,

What is the Benefited Population?*:	136
Has Feasibility Study Been Completed?*:	N/A
Has Engineering Design Been Completed?*:	N/A
Have Assessment Districts Been Formed?*:	Yes
Date Formed:	04/11/2012
Have Land or Easements Been Acquired?*:	N/A
Has Sediment Analysis For Reconstruction Of An Existing Drain Been Completed?*:	N/A
Extraterritorial Jurisdiction?*:	No
Have You Applied For Any Federal Permits?*:	N/A
If Yes or Ongoing, Please Explain (include type/number):	
Have You Applied for any State Permits?*:	No

If Yes or Ongoing, Please Explain (include type/number):

Have You Applied for any Local Permits?*: N/A

If Yes or Ongoing, Please Explain (include type/number):

Briefly explain the level of review the Project/Program/Study has undergone.

Level Review*:

The WRD recently completed a study of two dam embankments and spillway structures within the Elm River watershed have been determined to be in disrepair or insufficiently sized according to current North Dakota Dam Safety Standards. The WRD selected one alternative for each dam that has been identified as the project and will bring both dams into compliance with the State's current dam design standards. This project will include the final design hydraulics, geotechnical and structural evaluation

Do You Expect Any Obstacles To Implementation (i.e. problems with land acquisition, permits, funding, local opposition, environmental concerns, etc.)?

Obstacles*: No

Have you received, or do you anticipate receiving federal funding?

Federal Funding*: No

Implementation Timelines

Study*: 10/2021
Month/Year (00/0000)

Design*: 12/2022
Month/Year (00/0000)

Bid*: 04/2023
Month/Year (00/0000)

Construction Start*: 5/2023
Month/Year (00/0000)

Construction Completion*: 11/2023
Month/Year (00/0000)

Explain Additional Timeline Issues*:

Permitting from State and Federal Agencies may alter construction timeline, but is not considered an obstacle.

Certification

Submitted by*: Jessica Spaeth 01/10/2022
First Name Last Name Date

Address*: PO Box 10
Address Line 1

Address Line 2

Hillsboro North Dakota 58045-4412
City State Zip Code

Telephone Number*: 701-636-5812

Sponsor Email*: tcwrd@co.traill.nd.us

Consulting Engineer*: Moore Engineering, Inc.

Engineer Telephone Number*: 701-282-4692

Engineer Email*: Lyndon.Pease@mooreengineeringinc.com

This section needs to be completed by the project sponsor.
I certify that, to the best of my knowledge, the provided information is true and accurate.

Certify*: Yes

Authorized Individual*: Jessica Spaeth 01/10/2022
First Name Last Name Date

Documentation

Documentation

Project Specific Map
(Including an inset map of location within state.)
CLICK HERE **to see examples.**

Project Specific Map*: 21239_NDSWC_CostShare_ApplicationMap.pdf

Are You Seeking Department of Water Resources Cost-Share?*: Yes

CLICK HERE **for SFN 61801 Delineation of Costs.**

Delineation of Costs SFN 61801:	sfn_61801_delineation_of_cost.xlsx
Type of Request:	Preconstruction
Water Supply Projects?:	No
Rural Flood Control?:	No
Drain Reconstructions?:	No
Flood Recovery Property Acquisition?:	No
Community Flood Control, Rural Flood Control, Bank Stabilization, or Snag & Clear Project With Total Cost of $200,000 or More?:	No
Feasibility/Engineering Study for the Proposed Project or Other Applicable Documents:	Yes
Feasibility/Engineering Study Material or Other Applicable Document:	21239_ElmRiverSCSDamImprovements_20211022_Reduced.pdf
Engineering Total Cost of $35,000 or More?:	Yes
Engineering Selection Documentation:	21239_EngineerSelectionDocumentation.pdf

Sources

Funding Amount Requested

State FY1	State FY2	Beyond State FY2	Total Cost	Source	Type	Term	Interest Rate
$213,000.00	$0.00	$0.00	$213,000.00	Department of Water Resources	Grant	0.00	0.00
$213,000.00	**$0.00**	**$0.00**	**$213,000.00**				

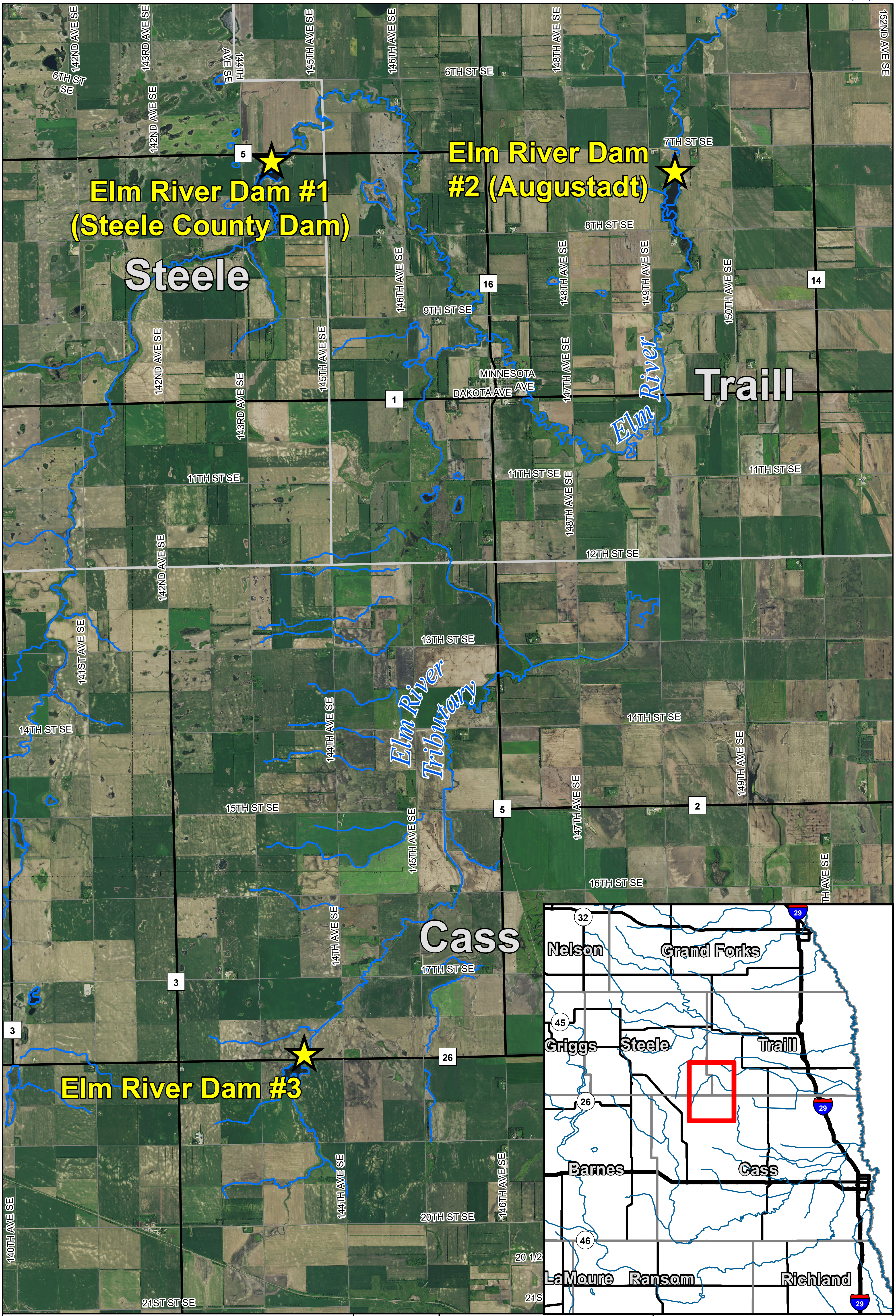
Other Funding Sources

Type	Source	Grant or Loan	State FY1	State FY2	Beyond State FY2	Total Other Sources
Other	RRJWRD	Grant	$92,300.00	$0.00	$0.00	$92,300.00
Local	Local	Loan	$49,700.00	$0.00	$0.00	$49,700.00
			$142,000.00	**$0.00**	**$0.00**	**$142,000.00**

Project Total

Current Requested Amount:	$213,000.00
Other Funding Sources:	$142,000.00
Total Project:	$355,000.00

DWR Date Received : 1/10/22



Elm River Dam #1
(Steele County Dam)
Elm River Dam
#2 (Augustadt)
Elm River Dam #3
Steele
Traill
Cass
Elm River
Elm River
Tributary
142ND AVE SE
143RD AVE SE
144TH AVE SE
145TH AVE SE
146TH AVE SE
148TH AVE SE
152ND AVE SE
6TH ST SE
7TH ST SE
8TH ST SE
9TH ST SE
149TH AVE SE
150TH AVE SE
147TH AVE SE
MINNESOTA AVE
DAKOTA AVE
11TH ST SE
12TH ST SE
13TH ST SE
14TH ST SE
15TH ST SE
16TH ST SE
17TH ST SE
20TH ST SE
21ST ST SE
141ST AVE SE
140TH AVE SE
14TH AVE SE
5
16
14
1
2
3
26
Nelson
Grand Forks
Griggs
Steele
Traill
Barnes
Cass
LaMoure
Ransom
Richland
32
45
26
46
29

Elm River Dam Study
Dam Location Map

Created By: GIS   Date Created: XX/XX/18   Date Saved: 04/16/20   Date Plotted: NEVER   Date Exported: 04/16/20
Plotted By: andrew.smith   Parcel Date: XX/XX/18   Aerial Image: 2017 County NAIP SIDS   Elevation Data: Lidar
Horizontal Datum: NAD 1983 UTM Zone 14N   Vertical Datum: NAVD1988
T:\Projects\21200\21239\Elm_River_Dam_StudyMap.mxd

N
W E
S

0 0.5 1 2
Miles
1 in = 1 miles

moore engineering, inc.

DELINEATION OF COSTS
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
PLANNING AND EDUCATION
SFN 61801 (10/2021)

DWR Date Received : Month Day, Year

Project:	Elm River Dam 1 & 2 Improvement
Sponsor:	Elm River Joint WRD
Contact:	Jessica Spaeth, Treasurer
Phone:	701-636-5812
Engineer:	Lyndon Pease
Phone:	701-282-4692

Total Cost :	$ 355,000
Ineligible Cost :	$ -
Eligible Cost :	$ 355,000
Local Cost :	$ 142,000

Date: January 10, 2022

	Cost-Share $
Preconstruction :	$ 213,000
Construction :	$ -

Project Type:	**Cost-share %**
Dam - Deficiencies and Repairs	60%

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share $ *
		Construction Costs						
1	#DIV/0!					$ -	60%	$ -
2	#DIV/0!		0		-	$ -	60%	$ -
3	#DIV/0!		0		-	$ -	60%	$ -
4	#DIV/0!		0		-	$ -	60%	$ -
5	#DIV/0!		0		-	$ -	60%	$ -
6	#DIV/0!		0		-	$ -	60%	$ -
7	#DIV/0!		0		-	$ -	60%	$ -
8	#DIV/0!		0		-	$ -	60%	$ -
9	#DIV/0!		0		-	$ -	60%	$ -
10	#DIV/0!		0		-	$ -	60%	$ -
11	#DIV/0!		0		-	$ -	60%	$ -
12	#DIV/0!		0		-	$ -	60%	$ -
13	#DIV/0!		0		-	$ -	60%	$ -
14	#DIV/0!		0		-	$ -	60%	$ -
15	#DIV/0!		0		-	$ -	60%	$ -
16	#DIV/0!		0		-	$ -	60%	$ -
17	#DIV/0!		0		-	$ -	60%	$ -
18	#DIV/0!		0		-	$ -	60%	$ -
19	#DIV/0!		0		-	$ -	60%	$ -
20	#DIV/0!		0		-	$ -	60%	$ -
21	#DIV/0!		0		-	$ -	60%	$ -
22	#DIV/0!		0		-	$ -	60%	$ -
23	#DIV/0!		0		-	$ -	60%	$ -
24	#DIV/0!		0		-	$ -	60%	$ -
25	#DIV/0!		0		-	$ -	60%	$ -
26	#DIV/0!		0		-	$ -	60%	$ -
		Construction Sub-Total				$ -	60%	$ -
	0.0%	**Contingency**				$ -	60%	$ -
	0.0%	**Construction Total**				$ -	60%	$ -
		Preconstruction Costs						
27	#DIV/0!	Final Design	1	LS	320,850.00	$ 320,850	60%	$ 192,510
28	#DIV/0!	Geotechnical Investigations	1	LS	34,150.00	$ 34,150	60%	$ 20,490
29	#DIV/0!		0		-	$ -	60%	$ -
30	#DIV/0!		0		-	$ -	60%	$ -
31	#DIV/0!		0		-	$ -	60%	$ -
	100.0%	**Preconstruction Total**				$ 355,000	60%	$ 213,000
		Construction Engineering Costs						
32	#DIV/0!					$ -	60%	$ -
33	#DIV/0!		0		-	$ -	60%	$ -
34	#DIV/0!		0		-	$ -	60%	$ -
35	#DIV/0!		0		-	$ -	60%	$ -
36	#DIV/0!		0		-	$ -	60%	$ -
	0.0%	**Construction Engineering Total**				$ -	60%	$ -
		Other Eligible Costs						
37	0.0%					$ -	60%	$ -
38	0.0%		0		-	$ -	60%	$ -
39	0.0%		0		-	$ -	60%	$ -
40	0.0%		0		-	$ -	60%	$ -
41	0.0%		0		-	$ -	60%	$ -
	0.0%	**Other Eligible Total**				$ -	60%	$ -
		In-eligible Costs						
42	0.0%					$ -	0%	$ -
43	0.0%		0		-	$ -	0%	$ -
44	0.0%		0		-	$ -	0%	$ -
45	0.0%		0		-	$ -	0%	$ -
	0.0%	**Other Ineligible Total**				$ -	0%	$ -
	100.0%	**Total**				$ 355,000		
		Eligible Total				$ 355,000	60%	$ 213,000
		Federal or State Funds That Supplant Costs				$ -		
		Eligible Cost Total				$ 355,000	60%	$ 213,000

* The Cost-share estimate is purely for planning and informational purposes only and does not, in any way, guarantee a financial commitment to any degree, from the State Water Commission.

H1

NORTH Dakota | Water Commission

Be Legendary.™

WATER COMMISSION COST-SHARE APPLICATION CHECKLIST

(This checklist must be attached to all applications for Water Commission cost-share assistance.)

Project sponsors requesting cost-share assistance from the North Dakota Water Commission are required to submit completed applications, including all supplemental materials, at least 45 days in advance of meetings. Incomplete applications or those submitted after the 45 day deadline will not appear on the next meeting agenda. Project sponsors, or their authorized representative, must verify that the following information is included as part of their application package for cost-share assistance.

Project Name:	Portland Water Tower Improvements	Sponsoring Entity:	City of Portland, North Dakota

Initial If Included, or "X" If Not	SWC Cost-Share Application Materials *Required For All Applications
SM/jrh	*Cost-Share Application Form (SFN 60439)
SM/jrh	*Project Specific Map (Including an inset map of location within state.) See Examples
SM/jrh	*Detailed Project Costs SFN 61801 (complete fillable worksheet)
X	Approved Drainage Permit (Rural Flood Control Only)
X	Results Of Positive Assessment Vote (Rural Flood Control Only)[1]
X	Acquisition Plan (Flood Recovery Property Acquisition Program Only)
X	Proof of HMGP Funding Ineligibility (Flood Recovery Property Acquisition Program Only)
X	Plans & Specifications For Bidding Project Construction (Construction Requests Only)
X	Economic Analysis Worksheet (Flood Control & Water Conveyance Construction Only)
SM/jrh	Life Cycle Cost Analysis Worksheet (Water Supply Construction Only)
SM/jrh	Capital Improvement Plan SFN 61938 (Water Supply Construction Only)

[1] *A pre-application process is allowed for assessment projects. (See Project Funding Policy, Procedure, and General Requirements)*

I hereby certify that the information contained in this application for cost-share assistance is true and accurate, and all required materials have been provided with this application. I have read and understand the Water Commission's requirements for a completed application, and further understand that the submission of an incomplete application package will not be considered by the Water Commission for cost-share assistance.

Sven Mickels	[signature]	6/25/2021
Project Sponsor (Printed Name) MAYOR	Project Sponsor (Signature)	Date

PLEASE NOTE

The cost-share application (SFN 60439); Life Cycle Cost Analysis Worksheet; Economic Analysis Worksheet; Project Funding Policy, Procedure, and General Requirements; and future meeting dates are available via the Water Commission website at swc.nd.gov. If you have questions, please call 701-328-4989 or email swccostshare@nd.gov.

COST-SHARE REQUEST

NORTH DAKOTA WATER COMMISSION
PLANNING DIVISION
SFN 60439 (5/2021)

This form is to be filled out by the project or program sponsor with Water Commission staff assistance as needed. Applications for cost-share are accepted at any time. However, applications received less than 45 days before a Water Commission meeting will be held for consideration at the next scheduled meeting.

Please answer the following questions as completely as possible. Supporting documents such as maps, detailed cost estimates, and engineering reports should be attached to this form. If additional space is required, please use extra sheets as necessary.

For information regarding cost-share program eligibility see the *Water Commission Cost-Share Policy, Procedure, and General Requirements* – available upon request or at www.swc.nd.gov.

Project, Program, Or Study Name
Water System Improvements

Sponsor(s)
City of Portland

County	City	Township/Range/Section
Traill	Portland	S35 T147N R53W

Description Of Request ☐ New ☐ Updated (previously submitted) ☒ Pre-Construction ☐ Construction

If Study, What Type ☐ Water Supply ☐ Hydrologic ☐ Floodplain Mgmt. ☐ Feasibility ☐ Other

If Project/Program

☐ Bank Stabilization	☐ Irrigation	☐ Recreation	☐ Snagging & Clearing
☐ Dam Safety/EAP	☐ Multi-Purpose	☐ Ring Dike Program	☐ Water Retention
☐ FEMA Levee Program	☒ Municipal Water Supply	☐ Rural Flood Control	
☐ Flood Protection Program	☐ Property Acquisition Program	☐ Rural Water Supply	

Jurisdictions/Stakeholders Involved In This Project
City of Portland, North Dakota

Description Of Problem Or Need And How The Project Provides A Solution
The City of Portland's water tower has reached its useful life. With only 50,000 gallons currently, there is a need for additional storage during peak demands. The new 150,000 gallon water tower will be used to provide adequate storage in peak demands and for fire flow. The new water tower construction will also improve existing pressure issues in the water distribution system.

For additional information, reference the attached Preliminary Engineering Report (PER).

Level Of Study Completed
A Feasibility Study or Preliminary Engineering Report (PER) was completed, which included an analysis of the existing water tower and distribution system, including a water system hydraulic model. Several alternatives were evaluated from rehabilitation to a new water tower. The new 150,000 gallon water tower and distribution improvements are the recommended alternative.

For additional information, reference the attached Preliminary Engineering Report (PER).

Describe Potential Obstacles To Implementation

Land Acquisition
None

Permits
North Dakota Department of Health

Funding
SWC Cost-Share & Rural Development (TBD). Funding is the only obstacle the Owner may encounter.

Local Opposition
None

Environmental Concerns
None

Other

Funding Timeline (carefully consider when SWC cost-share will be needed)

Source	Total Cost	2021-2023 7/1/21-6/30/23	2023-2025 7/1/23-6/30/25	Beyond 7/1/25
Federal	$52,920.00	$52,920.00	$	$
Water Commission	$176,400.00	$176,400.00	$	$
Other State	$0.00	$	$	$
Local	$64,680.00	$64,680.00	$	$
Total	$294,000.00	$294,000.00	$ 0.00	$ 0.00

Funding Detail (provide names and amounts from all potential funding sources from the table above.)

Source	Amount	Grant Or Loan	Term	Interest
SWC Cost-Share	$ 176,400.00	Cost-Share	n/a	n/a %
TBD: RD	$ 52,920.00	Grant	n/a	n/a %
TBD: RD (Local)	$ 64,680.00	Loan	40	2.00 %
	$			%

Explain Timelines For All Phases And Their Current Status
The timeline will be dependent on acquisition of SWC Cost-Share. Reference the PER for additional timeline information.

Study (Month/Year)	Design (Month/Year)	Bid (Month/Year)
Completed June 2021	September 2021 - December 2021	January 2022

Construction Start (Month/Year)	Construction Completion (Month/Year)
May 2022	June 2023

Has Economic Analysis Been Completed?	☒ Yes	☐ No	☐ Ongoing	☐ Not Applicable
Has Life Cycle Cost Analysis Been Completed?	☒ Yes	☐ No	☐ Ongoing	☐ Not Applicable
Has Feasibility Study Been Completed?	☒ Yes	☐ No	☐ Ongoing	☐ Not Applicable
Has Engineering Design Been Completed?	☐ Yes	☒ No	☐ Ongoing	☐ Not Applicable
Have Land Or Easements Been Acquired?	☐ Yes	☐ No	☐ Ongoing	☒ Not Applicable

Have Assessment Districts Been Formed?	☐ Yes	☐ No	☐ Ongoing	☒ Not Applicable	If Yes, (Date)?

Are Connections For New Rural Customers Located Within The Extra-Territorial Jurisdiction Of A Municipality? ☐ Yes ☒ No

Have You Applied For Any Federal Permits?	☐ Yes	☐ No	☒ Not Applicable
Have You Been Approved For Any Federal Permits?	☐ Yes	☐ No	☒ Not Applicable

Type	Number

If Yes, Please Explain

Have You Applied For Any State Permits?	☐ Yes	☒ No	☐ Not Applicable
Have You Been Approved For Any State Permits?	☐ Yes	☒ No	☐ Not Applicable

Type	Number

If Yes, Please Explain

Plans and Specifications will be provided to the North Dakota Department of Health for approval prior to Bidding and Construction.

Have You Applied For Any Local Permits?	☐ Yes	☒ No	☐ Not Applicable
Have You Been Approved For Any Local Permits?	☐ Yes	☒ No	☐ Not Applicable

Type	Number
City Approval	

If Yes, Please Explain

Submitted By			Date
Sven Mickels			
Address	**City**	**State**	**ZIP Code**
702 Arnold Avenue	Portland	ND	58274

Sponsor's Telephone Number	Sponsor's Email Address
701.788.2463	portlandcity@midconetwork.com
Engineer's Name	**Engineer's Telephone Number**
Justin Hall	701.499.5896
Engineer's Company	**Engineer's Email Address**
Moore Engineering, Inc.	justin.hall@mooreengineeringinc.com

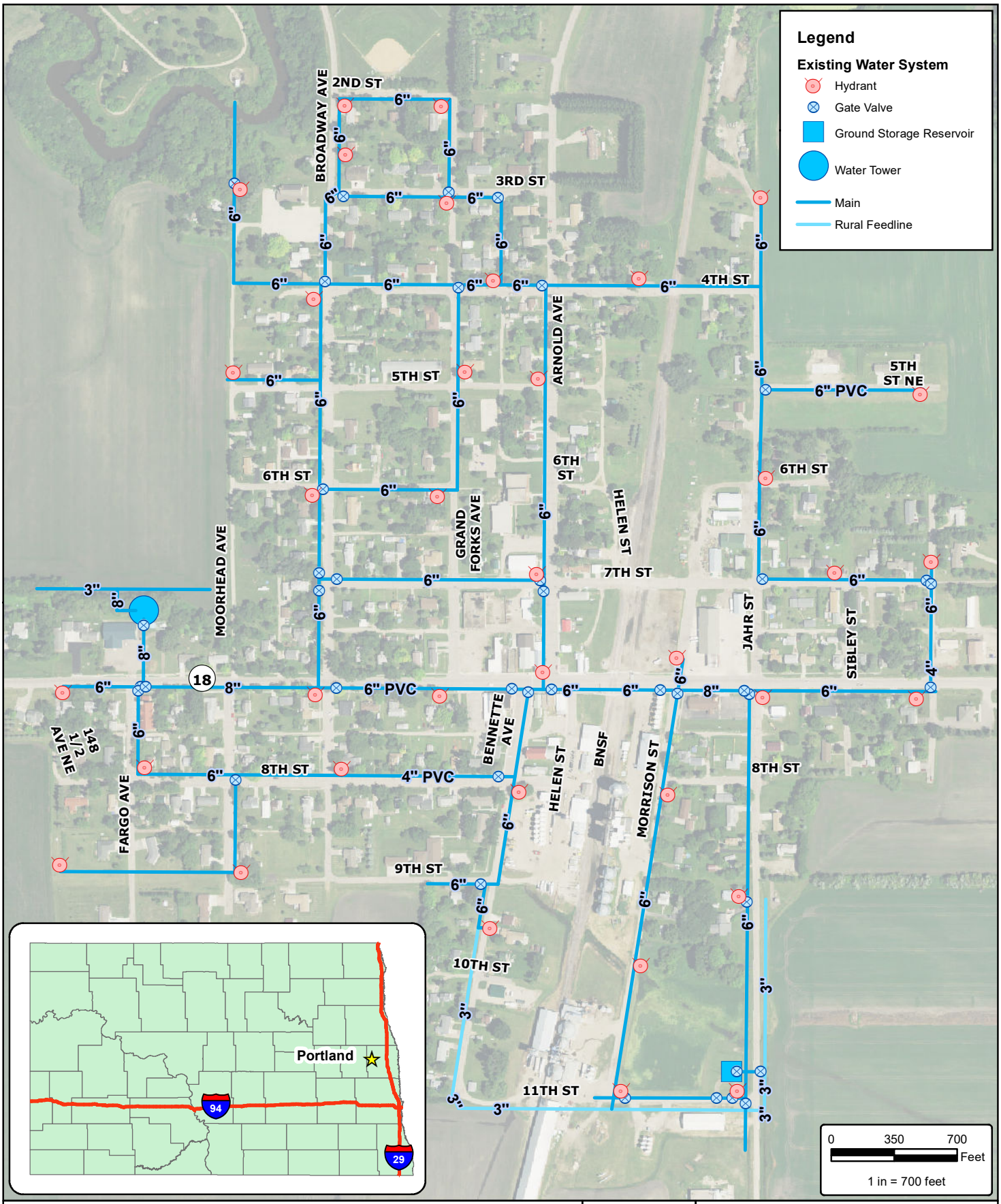
I Certify That, To The Best Of My Knowledge, The Provided Information Is True And Accurate.

Signature	Date
JC Mickels	6/24/2021

E-MAIL TO:
swccostshare@nd.gov

OR

Submit Via Email



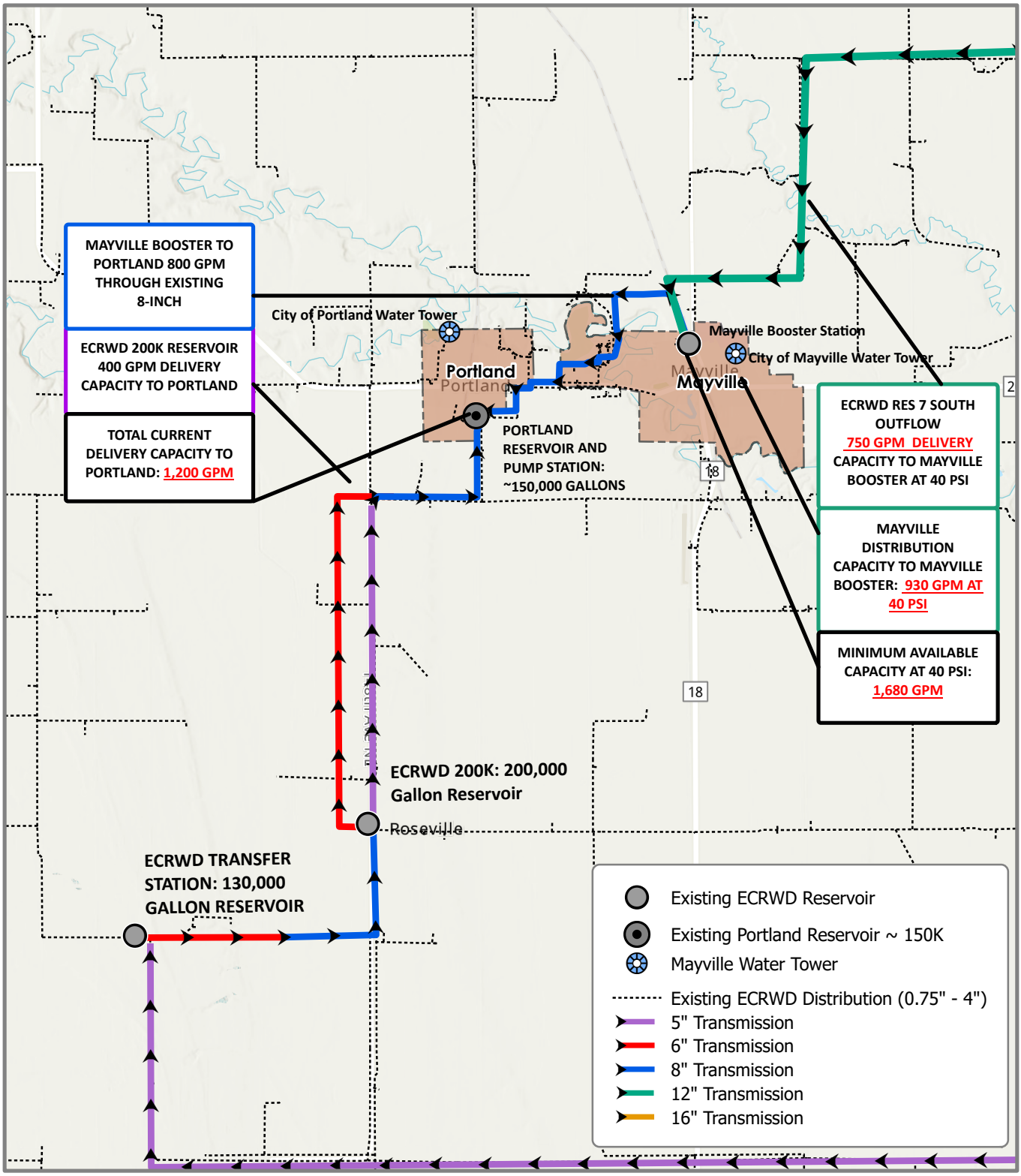
Water System Improvements
City of Portland
Traill County, North Dakota

Created By: TJS Date Created: 04/27/20 Date Saved: 04/27/20 Date Plotted: NEVER Date Exported: 04/27/20
Plotted By: Tanner.Schmidt Parcel Date: N/A Aerial Image: 2019 County NAIP SIDS Elevation Data: N/A
Horizontal Datum: WGS 1984 Web Mercator Auxiliary Sphere Vertical Datum: NAVD1988
T:\Projects\21000\21083\21083_Water_Exhibit.mxd

N W E S

moore engineering, inc.

EXISTING CONDITIONS



www.ae2s.com | Advanced Engineering and Environmental Services, Inc.

Information depicted may include data unverified by AE2S. Any reliance upon such data is at the user's own risk. AE2S does not warrant this map or its features are either spatially or temporally accurate.

Coordinate System: | Edited by: sslick | C:\Data\Projects\Nasuni\E\ECRWD\GIS_General\East Central Regional Water District\ECRWD.aprx

Locator Map Not to Scale

0 0.5 1

Miles

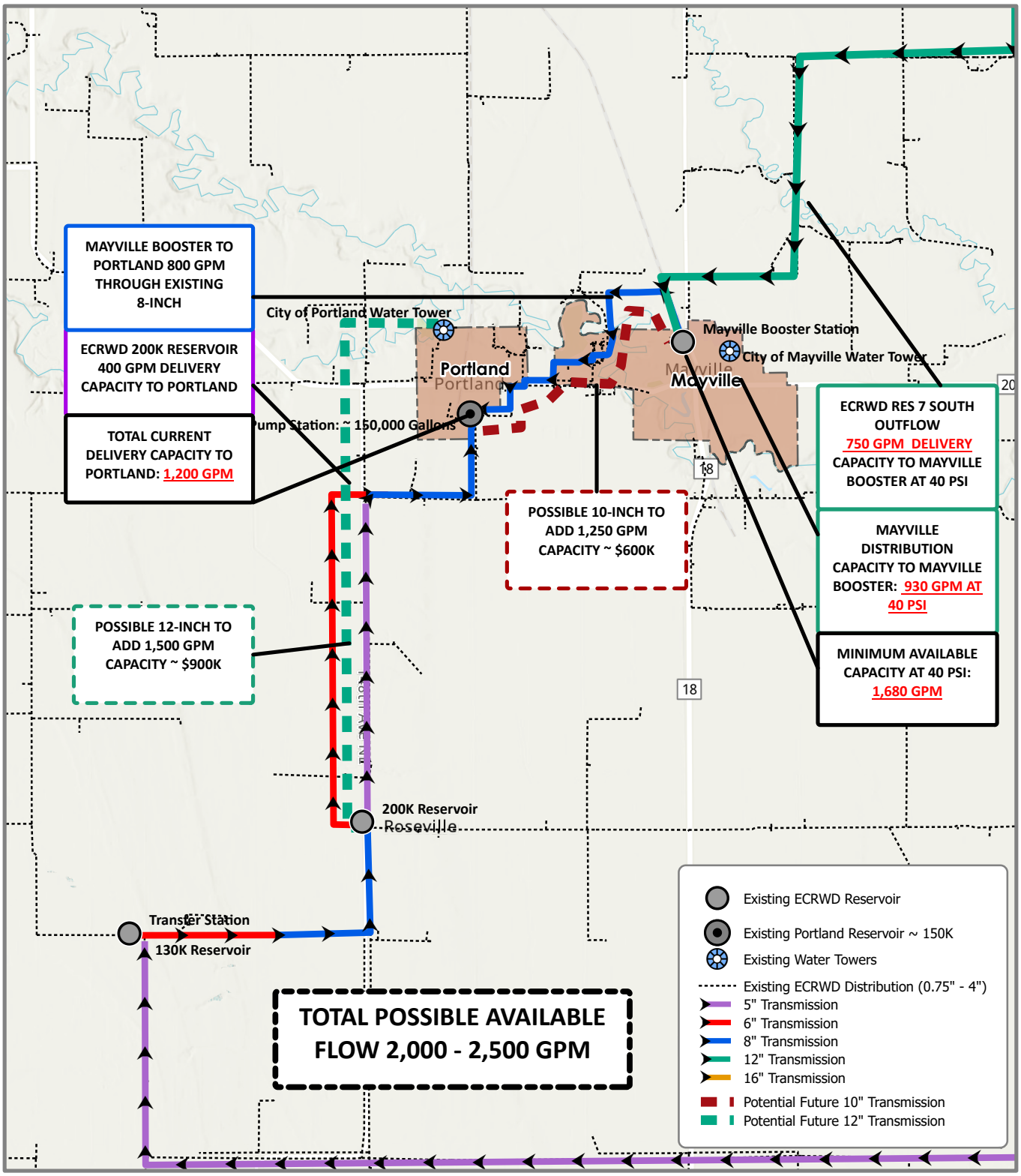
ECRWD TRANSMISSION LINES/ FLOWS AND PRESSURE MAYVILLE PORTLAND AREA EXISTING CONDITONS

EAST CENTRAL REGIONAL WATER DISTRICT
NORTH DAKOTA

N

Date: 8/18/2021

POSSIBLE FUTURE CONDITIONS



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Coordinate System: | Edited by: sslick | C:\Data\Projects\Nasuni\E\ECRWD\GIS_General\East Central Regional Water District\ECRWD.aprx

Locator Map Not to Scale

0 0.5 1

Miles

ECRWD TRANSMISSION LINES/ FLOWS AND PRESSURE MAYVILLE PORTLAND AREA FUTURE CONDITONS

EAST CENTRAL REGIONAL WATER DISTRICT
NORTH DAKOTA

N

Date: 8/18/2021

DELINEATION OF COSTS
NORTH DAKOTA WATER COMMISSION
PLANNING DIVISION
SFN 61801 (11/2020)

SWC Date Received : June 25, 2021

Project Costs

Date: June 25, 2021

Project:	Water System Improvements
Sponsor:	City of Portland, North Dakota
Contact:	Nadine Rygg
Phone:	(701) 788-2463
Engineer:	Justin Hall, Moore Engineering Inc.
Phone:	(701) 499-5896

Total Cost :	$ 3,636,167
Ineligible Cost :	$ 124,500
Eligible Cost :	$ 3,511,667

Cost-Share $
$ 2,107,000
Current Request Preconstruction 177,000

Project Type: Municipal Water Expansion/Improvement
Cost-share % 60%

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share $ *
		Construction Costs						
1	3.1%	General Requirements	1	LS	85,000.00	$ 85,000	60%	$ 51,000
2	0.9%	Replace Roof on Pump Station Building	1	LS	25,000.00	$ 25,000	60%	$ 15,000
3	0.3%	Repair Pipe Coatings at Pump Station	1	LS	7,500.00	$ 7,500	60%	$ 4,500
4	2.0%	Generator at Pump Station Building	1	LS	55,000.00	$ 55,000	60%	$ 33,000
5	0.5%	Electrical Switchgear	1	LS	14,000.00	$ 14,000	60%	$ 8,400
6	0.3%	General Electrical for Generator	1	LS	7,500.00	$ 7,500	60%	$ 4,500
7	33.3%	150,000 Gallon Spheroid Tank	1	LS	900,000.00	$ 900,000	60%	$ 540,000
8	10.2%	Deep Foundation	1	LS	275,000.00	$ 275,000	60%	$ 165,000
9	0.6%	Tank Mixer	1	LS	15,000.00	$ 15,000	60%	$ 9,000
10	0.9%	Site Piping	1	LS	25,000.00	$ 25,000	60%	$ 15,000
11	0.6%	Site Restoration	1	LS	15,000.00	$ 15,000	60%	$ 9,000
12	1.5%	VFD and Control Integration for Pumps	1	LS	40,000.00	$ 40,000	60%	$ 24,000
13	1.1%	Demolish Existing Tank	1	LS	30,000.00	$ 30,000	60%	$ 18,000
14	0.0%		0		-	$ -	60%	$ -
15	0.4%	Removal of Concrete	475	SY	20.00	$ 9,500	60%	$ 5,700
16	0.0%	Removal of Curb & Gutter	0	LF	10.00	$ -	60%	$ -
17	0.1%	Removal of Bituminous Surfacing	250	SY	15.00	$ 3,750	60%	$ 2,250
18	0.5%	Removal of Water Main	2450	LF	5.00	$ 12,250	60%	$ 7,350
19	0.1%	Removal of Gate Valve	3	EA	500.00	$ 1,500	60%	$ 900
20	0.1%	Removal of Hydrant	2	EA	750.00	$ 1,500	60%	$ 900
21	0.6%	Water Main - Connect to Existing	14	LF	1,200.00	$ 16,800	60%	$ 10,080
22	2.6%	Water Main 6"	1300	LF	55.00	$ 71,500	60%	$ 42,900
23	8.4%	Water Main 8"	3500	LF	65.00	$ 227,500	60%	$ 136,500
24	0.4%	Water Service Line Connection - 1"	18	EA	650.00	$ 11,700	60%	$ 7,020
25	0.0%	Water Service Line Connection - 2"	0	EA	800.00	$ -	60%	$ -
26	0.6%	Water Service Line - 1"	540	LF	30.00	$ 16,200	60%	$ 9,720
27	0.0%	Water Service Line - 2"	0	LF	40.00	$ -	60%	$ -
28	0.0%	Gate Valve and Box - 6"	0	EA	1,600.00	$ -	60%	$ -
29	0.3%	Gate Valve and Box - 8"	4	EA	1,900.00	$ 7,600	60%	$ 4,560
30	0.0%	Hydrant - 6"	0	EA	5,500.00	$ -	60%	$ -
31	10.9%	Topsoil	8400	CY	35.00	$ 294,000	60%	$ 176,400
32	0.1%	Subgrade Preparation-Type A-12In	725	SY	4.00	$ 2,900	60%	$ 1,740
33	0.0%	Aggregate Base Course Cl 5	450	SY	3.00	$ 1,350	60%	$ 810
34	0.0%	Geosynthetic Material Type S1	250	SY	3.50	$ 875	60%	$ 525
35	1.0%	Superpave FAA 42	200	TON	130.00	$ 26,000	60%	$ 15,600
36	0.0%	Patching	0	SY	60.00	$ -	60%	$ -
37	0.0%	Curb & Gutter-Type I	0	LF	50.00	$ -	60%	$ -
38	0.0%	Valley Gutter 72In	0	SY	120.00	$ -	60%	$ -
39	0.0%	Sidewalk Concrete	0	SY	90.00	$ -	60%	$ -
40	0.1%	Driveway Concrete	25	SY	110.00	$ 2,750	60%	$ 1,650
41	0.0%	Detectable Warning Panels	0	SF	65.00	$ -	60%	$ -
42	0.1%	Seeding Class III	1	LS	2,500.00	$ 2,500	60%	$ 1,500
43	0.1%	Hydraulic Mulch	1	LS	2,500.00	$ 2,500	60%	$ 1,500
44	0.9%	Mobilization	1	LS	25,000.00	$ 25,000	60%	$ 15,000
45	0.2%	Traffic Control	1	LS	5,000.00	$ 5,000	60%	$ 3,000
46	0.1%	Storm Water Management	1	LS	2,500.00	$ 2,500	60%	$ 1,500
47	0.6%	Testing Allowance	1	LS	15,000.00	$ 15,000	60%	$ 9,000
48	0.0%		0		-	$ -	60%	$ -
		Construction Sub-Total				$ 2,254,175	60%	$ 1,352,505

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share $ *
		Construction Costs						
	10.0%	**Contingency**				$ 446,325	60%	$ 267,795
	74.3%	**Construction Total**				$ 2,700,500	60%	$ 1,620,300
		Engineering Costs						
45	10.3%	Engineering (Pre-Construction)	1		279,000.00	$ 279,000	60%	$ 167,400
46	0.6%	Geotechnical	1		16,000.00	$ 16,000	60%	$ 9,600
47	0.0%		0			$ -	60%	$ -
48	12.6%	Engineering (Construction)	1		341,000.00	$ 341,000	60%	$ 204,600
49	0.0%		0		-	$ -	60%	$ -
50	0.0%		0		-	$ -	60%	$ -
50	0.0%		0		-	$ -	60%	$ -
51	0.0%		0		-	$ -	60%	$ -
	17.5%	**Engineering Total**				$ 636,000	60%	$ 381,600
		Other Eligible Costs						
52	4.8%	Miscellaneous	1		175,167.00	$ 175,167	60%	$ 105,100
53	0.0%		0		-	$ -	60%	$ -
54	0.0%		0		-	$ -	60%	$ -
55	0.0%		0		-	$ -	60%	$ -
56	0.0%		0		-	$ -	60%	$ -
57	0.0%		0		-	$ -	60%	$ -
58	0.0%		0		-	$ -	60%	$ -
59	0.0%		0		-	$ -	60%	$ -
	4.8%	**Other Eligible Total**				$ 175,167	60%	$ 105,100
		In-eligible Costs						
60	0.4%	Legal Fees	1		15,000.00	$ 15,000	0%	$ -
61	0.1%	Bond Counsel	1		4,000.00	$ 4,000	0%	$ -
62	0.4%	Bond Discount	1		15,000.00	$ 15,000	0%	$ -
63	0.8%	Capitalized Interest	1		28,000.00	$ 28,000	0%	$ -
64	1.0%	USDA RD Funding Assistance	1		35,000.00	$ 35,000	0%	$ -
65	0.8%	SWC Funding Assistance	1		27,500.00	$ 27,500	0%	$ -
66	0.0%		0		-	$ -	0%	$ -
67	0.0%		0		-	$ -	0%	$ -
					-			
	3.4%	**Other Ineligible Total**				$ 124,500	0%	$ -
	100.0%	**Total**				$ 3,636,167		
		Eligible Total				$ 3,511,667	60%	$ 2,107,000
		Federal or State Funds That Supplant Costs				$ -		
		Eligible Cost Total				$ 3,511,667	60%	$ 2,107,000

* The Cost-share estimate is purely for planning and informational purposes only and does not, in any way, guarantee a financial commitment to any degree, from the State Water Commission.

Life Cycle Cost Analysis Review

Sponsor: City of Portland
Project Title: New Water Tower **Date:** January 19, 2022

Explanation of Alternatives:

New 150,000-Gallon Elevated Tank (Preferred): Replace the existing 50,000-gallon elevated water tank with a 150,000-gallon water tank.

Water Distribution Improvements: These are the previous elements included that are required within the city's distribution system regardless of how capacity is supplied.

12" Rural Water Connection and Site Improvements: Replace the 5-inch rural line from Roseville with a 12-inch line and connect to the tower site.

Inputs:

	New 150,000 Gallon Elevated Tank	Water Distribution Improvements (Areas 1-4)	**12" Rural Water Connection and Site Improvements**	
Users Served	281		331	
Construction Cost	$2,320,000	$1,315,000	$1,336,400	
Annual O & M	$10,000	$0	$0	

Details:

New 150,000-Gallon Elevated Tank (Preferred): Replace the existing 50,000-gallon elevated water tank with a 150,000-gallon water tank. This project also includes decommissioning, removal of the existing tower, and connecting the new tower.

Water Distribution Improvements: These are the system elements that are required within the city's distribution system regardless of the choice between a tower or direct rural water supply.

12" Rural Water Connection and Site Improvements: Replace the aging 5-inch rural line from Roseville's 200,000-gallon tank which goes to Portland's ground storage with a 12-inch line and connect to the tower site with the flow capacity desired by the city.

Model Function:

The economic model appears to have functioned properly. The results are deemed to be reliable and repeatable with the inputs provided by the project sponsor.

LCCA Model Results:

Scenario Analysis - Present Value Life Cycle Cost Summary

Present Value	**New 150,000 Gallon Elevated Tank**	Water Distribution Improvements (Areas 1-4)	**12" Rural Water Connection and Site Improvements**	
Capital Costs	$2,288,000	$1,315,000	$1,336,000	
O&M	$253,000	$0	$0	
Repair, Rehab, Replacement	$487,000	$0	$35,000	
Salvage Value	$183,000	$0	$4,000	
Sub Total PVC	$2,845,000	$1,315,000	$1,367,000	
Total PVC with Distribution Improvements	**$4,160,000**		**$2,682,000**	
PV Cost Per User	**$10,125**	**$4,680**	**$4,130**	
Total PV Cost Per User	**$14,804**		**$5,196**	
Current Water Rate (Cost Per 5000g)	**$45**			
Comparable Water Rate	**$50**			
Total Municipal Service Users	281	281	331	
Cost-Share Percent	60%	60%	75%	
Local Share	$915,200	$526,000	$334,000	
Other Funding	$0	$0	$0	
Total Local	$915,200	$526,000	$334,000	
Payment Per User With Cost-Share	**$16.48**	**$9.47**	**$5.10**	
State Share	**$1,372,800.00**	**$789,000.00**	**$1,002,000.00**	
Local Share	$2,288,000	$1,315,000	$1,336,000	
Other Funding	$0	$0	$0	
Total Local	$2,288,000	$1,315,000	$1,336,000	
Payment Per User Without Cost-Share	**$41.19**	**$23.67**	**$20.42**	

Explanation of Results:

The present value cost (PVC) of the Portland preferred alternative of a new tower would be $4,160,000, which is $1,478,000 more expensive than the rural water solution with a PVC of $2,682,000. Under current policy the tower and in town improvements would be eligible for up to 60% cost-share, whereas the rural solution would be eligible for up to 75% cost-share. Total construction costs for the tower solution, including the citywide improvements is $3,603,000. The rural solution, including the citywide improvements, is $2,651,000, resulting in a savings of $952,000 in upfront infrastructure investment if the rural solution is chosen. Portland resident's local share for the tower solution and distribution is $1,441,200. The rural water connection local share would be evenly divided between the city and ECRWD. Therefore, the local share for the rural solution with the distribution system is $693,000 or $526,000 + (334,000/2). If the rural solution is chosen by the residents, the direct savings to the town will be approximately $748,200, assuming the commission fully funds the alternatives. The direct savings to the SWC would be $370,800.

	Year		Annual Population Growth	Average Annual Population
ND Dept. of Commerce	2010	2020	Rate	Increase/Decrease
Population & Trends	606	585	-0.3%	-2

Other Comments:

Direct costs to the residents of Portland would be $14,804 per user if the tower solution is selected and $5,196 per Portland user if the rural solution is selected (not including the distribution system improvements for both alternatives). By participating with the ECRWD rural connection solution, Portland will benefit from half the cost of the rural line being covered by ECRWD. ECRWD plans to extend from this line with approximately 6 inch service lines in the future to address supply issues to the north and west of Portland. The rural solution provides the requested 1,500 gpm service volume at less than half the cost to Portland residents than the 1,250 gpm the water tower alternative will provide, and residents will not incur future O&M expenses related to tower maintenance. Of significant concern to the city of Portland is a guarantee of fire flow in any future agreement with ECRWD, which to date, has not been reconciled.

LCCA Version Version 1.2021-6.29

CAPITAL IMPROVEMENT PLAN (CIP)
NORTH DAKOTA WATER COMMISSION
PLANNING DIVISION
SFN 61938 (1/2021)

System: City of Portland, North Dakota
Date: 06/22/21

Population: 606
Users: 281

ASSET	UNITS	UNIT COST	QTY	RESERVE REPLACEMENT %	REPLACEMENT COST	AVERAGE LIFE (YRS)	ANNUAL RESERVE	MONTHLY RESERVE	MONTHLY RESERVE PER CUSTOMER
Existing Project CIP Costs									
Ex. Water Main	Linear Feet	$40.00	5,000	75.00%	$150,000	50	$3,000	$250	$0.89
Ex. Water Tower	Gallons	$6.00	50,000	75.00%	$225,000	50	$4,500	$375	$1.33
Ex. Pump House	Gallons	$6.00	60,000	75.00%	$270,000	50	$5,400	$450	$1.60
SUBTOTAL Existing CIP Costs					$645,000		$12,900	$1,075	$3.83
New Project CIP Costs									
New Water Tower	Gallons	$6.00	150,000	75.00%	$675,000	50	$13,500	$1,125	$4.00
New Water Main	Linear Feet	$40.00	4,800	75.00%	$144,000	50	$2,880	$240	$0.85
SUBTOTAL New CIP Costs					$819,000		$16,380	$1,365	$4.86
TOTAL Existing and New Project CIP					$1,464,000		$29,280	$2,440	$8.68

	TOTAL RESERVES	ANNUAL RESERVE	MONTHLY RESERVE	MONTHLY RESERVE PER CUSTOMER
Current:	$645,000	$12,900	$1,075.00	$3.83
Adjustment:	$819,000	$16,380	$1,365	$4.86

	Monthly Ave Gal/user	Monthly $/kgal
Required	5,000	$1.74
Current	5,000	$0.77
Adjustment	5,000	$0.97

Report Prepared by (Title): _____

Date: _____

Notes:

Instructions
1 - Fill in colored items
2 - Enter Existing asset project CIP costs
3 - Enter New asset project CIP costs
4 - Enter current total reserves and annual reserve

SWC Date Received : 9/1/21

City of Portland

704 Arnold Ave
PO Box 189
Portland, ND 58274-0189
701-788-2463

August 31, 2021

Andrea Travnicek, Director
North Dakota Department of Water Resources
ATTN: Cost-Share Program
900 East Boulevard Avenue
Bismarck, ND 58505-0850
Email: dwrcostshare@nd.gov

RE: Water System Improvements
City of Portland, North Dakota

In November of 2020, the City of Portland ("City") entered into an agreement for cost-share reimbursement with the Department of Water Resources ("DWR"), formerly known as the State Water Commission. The cost-share request was submitted to have Moore Engineering, Inc. ("Moore") complete a Feasibility Study, which included an evaluation on the City's current water storage, such as rehabilitating or replacing the existing water tower. Other components evaluated were the distribution system, including water quality and fire flow.

Since then, the Feasibility Study, also referred to as a Preliminary Engineering Report ("PER"), has been completed and a pre-construction cost-share request was submitted to DWR for consideration at the August 2021 Commission meeting. At this meeting, Commissioner Dick Johnson asked if a direct connection to rural water was considered. As stated in PER, Alternative E described the option for a Constant Pumping Pressure System, which would provide the City with daily flow and fire protection, and would be a direct connection to rural water. The City of Portland currently receives treated water from East Central Regional Water District ("ECWRD"), but does not provide fire protection. The conclusion and final opinion regarding Alternative E was that it is not viable because it is not as reliable as having an elevated water tank. Therefore Alternative E was no longer considered. After additional discussion at the August 2021 meeting, the direction of the Commission was to further evaluate a direct connection to rural water, essentially a modified Alternative E.

On August 19, 2021, a meeting was held with the City, Moore, DWR Staff, ECWRD, and AE2S in attendance. ECWRD and AE2S provided multiple options for improvements to their rural water system that would accommodate a direct connection for the City of Portland. There are likely four (4) alternatives that will need to be considered and further evaluated, three (3) of which will require improvements solely to the ECRWD system. These are improvements that ECRWD have proposed and they are not improvements which the City has requested of ECRWD.

The DWR has requested that the City fully evaluate each of these options and investigate all improvements needed, as well as all costs associated with each option for a direct connection. This additional work is being done

at the request and direction of the DWR. Moore will be performing the supplementary evaluation and will include the City's preferred alternative of a new 150,000 gallon elevated water tank, which was recommended in the PER.

Pursuant to the current Department of Water Resources Cost-Share policy, the City qualifies for a 60% cost-share for eligible expenses for municipal type projects. It is our opinion, and under these unique circumstances, that the City should receive 100% cost-share to further evaluate the new alternatives as directed by the DWR.

Therefore, the City of Portland respectfully requests that the DWR approve the cost-share at 100% for the additional evaluation requested for the feasibility study and to include an amendment to the PER.

If the cost-share request is approved, Moore will complete the additional evaluation including amendments to the PER. Once completed, the City will review the new alternatives and recommendations presented within the amended PER and will make a determination or selection based on project cost, affordability, and most importantly, select an alternative that corrects the deficiencies.

Once the additional evaluation is complete and the PER is amended, the City will submit a cost-share request for the Pre-Construction phases of the selected project.

The cost-share application and supporting documents are enclosed for your review. Should you have any questions or require additional information, please contact Justin Hall, our City Engineer, by phone at 701.499.5896 or by email at justin.hall@mooreengineeringinc.com.

Sincerely,

S E Mickels 8/31/2021

Sven E. Mickels
Mayor, City of Portland
Cell 218-791-9324

Enclosures

Cc: Justin Hall, Moore Engineering Inc.

Consulting Engineering • Land Surveying
925 10th Avenue East, West Fargo, ND 58078
T: 701-282-4692 F: 701-282-4530

Technical Memorandum

Date: 1 November, 2021
To: City of Portland
CC: Jeff Ebsch, PE
From: Tyrel Clark, PE
Subject: Proposed East Central agreement for water supply

Introduction

The City of Portland (Portland) has a deteriorating elevated water tank that needs to be refurbished or replaced in the near term. A Preliminary Engineering Report (PER) was completed by Moore Engineering (Moore) which recommended the tank be replaced. The preliminary engineering report was used as part of the application to the North Dakota State Water Commission (SWC) for funding for the tank replacement project. During the meeting where the funding was to be approved, the concept was introduced that East Central Regional Water District (East Central) could supply fire flow to Portland. East Central currently supplies water to Portland but at flow rates far less than would be needed for fire flow.

It is unusual for rural water systems to provide adequate flows as a direct connection from rural water systems to be able to fight fires, particularly systems the size of Portland's. The current agreement between Portland and East Central includes the following clause:

"PURCHASER (Portland) understands and agrees that SELLER (East Central) does not warrant or guarantee in any manner sufficient quantities of water to meet PURCHASER'S fire fighting needs".

Given this significant departure from the typical role of a rural water system and given the specific nature of the current agreement, Moore raised concerns with Portland about the need to update the agreement before the alternative to rely on East Central for fire flows could be considered viable. On September 15, 2021 it was requested East Central provide draft language for an updated agreement. On October 28, 2021 the draft language was delivered to Moore by Portland. Portland requested Moore review the proposed agreement and provide feedback to Portland. The purpose of this Technical Memorandum (TM) is to document the requested feedback.

Draft Agreement Review
Moore is not a legal firm, and we do not offer legal advice. We recommend the city consult a lawyer with regard to the proposed agreement. Our review is intended to be an engineering perspective on the proposed agreement.

There are several paragraphs throughout the draft agreement that indicate East Central will be responsible for the cost of the project. The apparent intention is that East Central will finance the city's share of the project. We suggest the city negotiate a specific dollar amount or percentage of the project and then pursue alternative financing options for their portion. Based on our experience, Portland should have access to the same loan programs available to East Central. Portland would not therefore benefit from the 1% proposed added charge paid to East Central.

Paragraph 1.1 – This paragraph leaves blanks for the volume and flow rate of water to be provided to Portland. At a minimum, this volume and flow rate needs to be equal to peak day demand. If a source cannot provide peak daily demand it is not adequate and would need to be replaced or supplemented with an alternative source. Based on the PER, the peak day demand for Portland is estimated at 91,800 gallons. Over the course of a 24 hour period, this equates to approximately 64 gallons per minute. This is the minimum normal flow rate that should be considered acceptable. We recommend the estimated peak day demand of 91,800 gallons and the minimum flow rate of 64 gpm both be included in the agreement.

If the Portland pump station is to be removed from the system, the connection to East Central will need to provide demand under all scenarios including peak hour. Based on the PER, peak hour demand is estimated at 128 gpm for Portland. Discussion of fire flow (1,500 gpm needs to be outlined in a separate paragraph.)

Paragraph 1.1.ii – This paragraph outlines procedures to adjust billing for metering errors that favor Portland. We believe it is appropriate to have a reciprocal procedure to adjust billing to correct metering errors that favor East Central.

Paragraph 1.3 – As outlined previously, peak day demand (64 gpm) is a minimum requirement. If the pump station is to be removed, peak hour (128 gpm) is the minimum requirement. Discussion of fire flow (1,500 gpm) needs to be outlined in a separate paragraph.

Paragraph 1.6 – It seems inappropriate for Portland to waive protection under the law in the event East Central were to be found in violation of a state or federal law. It seems particularly inappropriate for Portland to "indemnify" and "defend" East Central in such a case.

Paragraph 1.7 – This paragraph states "…it is the policy of East Central to accommodate emergency flow needs of the cities it serves." This language suggests the practice of providing emergency flow is based on a policy that is entirely at the discretion of East Central. There is nothing in the agreement that would prevent East Central from declaring a new policy and cutting off emergency flows. If Portland is to rely on East Central for fire flow it needs to be codified in the agreement.

The paragraph says East Central will provide emergency flows to the "maximum extent possible without compromising the domestic needs of other users". It suggests a level of

uncertainty with regard to their ability to provide fire flows when needed. Given the unpredictable nature of the need for water for fighting fires, our opinion is that a higher degree of certainty should be expected and should be reflected in the language of the agreement.

The paragraph indicates “reasonably available surplus water” will be provided as fire flow. Reliance on “surplus water” for fire flow is another example of language that makes East Central’s responsibility too nebulous to provide appropriate assurances to Portland.

During the development of the PER, Portland determined their fire flow requirements are 1,500 gpm for two hours. In order for the alternative of East Central providing fire flow to be considered viable. We recommend the agreement stipulate East Central guarantees 1,500 gpm for two hours will be available to Portland at a minimum pressure of 45 (HGL of 1104) on demand for emergency flows.

Paragraph 2.1 – An arbitrary 3% increase seems excessive. Increases should be based on actual cost increases not more.

There is no protection for the city against rate increases. One potential protection for Portland would be to have rates and increases be consistent for all users on the system.

Paragraph 2.2 – This paragraph and several other locations in the proposed agreement suggest East Central will finance Portland’s portion of the project. We suggest Portland consider pros and cons of all funding options available to them. The agreement should allow Portland to pay their portion of the project via other means if they choose.

There is more to a water system than paying for the source water. Elsewhere in the document East Central retains the right to shut water off to the City for non-payment. Seizing the city’s revenue from the water enterprise seems unnecessary. The ability to raise rates on city customers also seems inappropriate.

Paragraph 3.1 – There has been some ambiguity on where East Central intends to deliver water to the City. There are at least two potential scenarios.

> If water is to be delivered only to the west side of the Portland system at the location of the existing tank, the ground reservoir would likely be taken offline. In that case, the connection will need to be capable of providing both fire flow and peak hour demand.
>
> If fire flows are to be delivered on the west side of the system and normal flows will continue to be delivered to the ground reservoir then peak day demand will be adequate in situations other than for fire flow. The reservoir and existing pumps would provide equalization between peak day and peak hour flows. Fire flows of 1,500 gpm should be delivered near the existing tank site.

The agreement should reflect the anticipated configuration for water delivery.

Paragraph 3.2.vi – The meter is a necessary part of this concept. The cost of the meter should be a Project Cost. The grant and cost share should apply to the meter just as they do to all portions of the project.

Paragraph 5.5.iv – If the project is subject to a loan forgiveness, there is no reason Portland shouldn't benefit from the loan forgiveness. The proposed language seems to remove this possibility.

Article 6 – The offer to provide fire flow by a rural water system is consequential and is a departure from industry norms. Given the potential loss of life and property that can occur in a fire, we believe it is appropriate for the agreement to spell out the fire flow that is to be provided by East Central and to indicate the penalty for failure to provide the water. Just as consequences are specified if Portland does not fulfil their obligations, there should be consequences specified in the event East Central fails to fulfil their obligations.

Summary and Conclusions

The analysis in this TM is ordered based on the order of the paragraphs in the agreement. However, we would like to draw particular attention to the issue of the providing fire flow. In our responsibility to the public health and safety, we feel this is the highest priority issue. We feel the citizens of Portland should have assurance that East Central will provide fire flow as has been suggested. Providing fire flow from a tank and/or pump station operated by a municipality is an option that has proven effective for many years. If Portland is going to move away from this proven method, it's citizens deserve an agreement that clearly spells out the requirements of providing fire flow and consequences for failure to fulfil the agreement.

BULK WATER SUPPLY AND COST SHARE AGREEMENT BETWEEN EAST CENTRAL REGIONAL WATER DISTRICT AND THE CITY OF PORTLAND

THIS BULK WATER PURCHASE AND COST SHARE AGREEMENT (the "**Agreement**") is entered into between East Central Regional Water District, a North Dakota water district (the "**East Central**") and the City of Portland, a North Dakota political subdivision ("**City**").

RECITALS

The City seeks a bulk treated water supply to provide within its service territory through its water distribution system.

East Central operates a water supply distribution system and can provide the requested bulk water supply to the City.

The City plans to cost share in the design and construction of a pipeline and related infrastructure needed to increase the flow of East Central water to the City's infrastructure ("Project"). A description of the Project plan and estimated cost of the infrastructure needed is attached hereto as Exhibit A. "Project Costs" shall include the engineering services, design, bidding, equipment, material (including pipeline and related items), environmental services, right of way acquisition, permit acquisition, surveying, construction inspection, interim or permanent financing costs, labor costs, and any other costs associated with construction of infrastructure necessary to meet the City's water demand. The total Project Cost is estimated to be $_____, of which a cost share of 75% is expected from the State through the North Dakota Department of Water Resources (NDDWR) for costs that are eligible for reimbursement pursuant to NDDWR cost share policy. The 25% local share of reimbursable costs plus any non-reimbursable costs will be split evenly between East Central and the City.

The City is authorized to enter into this Agreement by pursuant to appropriate action of the City's governing body as of _____, 2021.

The parties are entering into this Agreement to establish their respective rights and obligations, and to provide for the infrastructure necessary for this demand to be met.

THEREFORE, in consideration of the mutual covenants set forth in this Agreement, and other good and valuable consideration, the receipt and sufficiency of which is acknowledged by the parties, the parties agree as follows:

ARTICLE 1.
WATER METRICS AND USE

1.1 **Volume.** The parties contemplate that the East Central shall provide potable, treated water to the City in an amount no greater than ___ gallons per day at a maximum flow rate of up to ____ gpm through the end of the Term of this Agreement.

(i) The volume of water delivered to the City shall be determined by meters that are approved by East Central and purchased by the City. The City will arrange to furnish, install, operate and maintain, at its own expense at the point of delivery, the necessary metering equipment and other required devices of standard types, enclosed in a house or pit, for properly measuring and controlling the quantity of water delivered to the City. The City may request that East Central install, operate, maintain, repair or replace the meter with the costs of the same assessed entirely to the City without any cost share by East Central.

(ii) From time-to-time, the City may test the meters at its own expense. East Central may request that any applicable meters be tested and calibrated once per 12-month period. A meter registering not more than 2% above or below the test result shall be deemed accurate. If a tested meter is found to over-register beyond 2%, the City shall (i) pay the cost of testing; and (ii) correct the previous readings for the previous three billing periods by the percentage inaccuracy found in the test. If a meter test is requested by East Central and the tested meter is not found to over-register beyond 2%, East Central shall pay the cost of testing.

(iii) If any meter fails to register for any period, the amount of water delivered during such period shall be deemed to be the amount of water delivered in the corresponding period immediately prior to the failure, unless otherwise proven or agreed-upon by the parties.

(iv) The City will be responsible for paying for all water that is delivered through the applicable meters, regardless of its use, including for spills or leakage resulting from breaks in the City's water lines or improper installation or maintenance of equipment by the City.

1.2 **Variability by The City.** The City shall pay for the actual volume of water delivered by East Central at the Price established herein. Subject to capacity limitation stated above and system limitations for East Central, which are determinations to be made solely within the discretion of East Central, the City may be permitted to exceed the per day capacity stated in Section 1.1 with prior approval by East Central. The consistent use by the City of more than the maximum amount specified in Section 1.1 does not give rise to an obligation of East Central to provide anything beyond the amount specified in Section 1.1.

1.3 **Flow Rate.** Throughout the Term, except as identified in Section 1.1, East Central shall provide water to the City at a minimum flow rate of at least 35 gallons per minute. East Central will provide water at greater flow rates as system capacity will allow and at its discretion, but no rate above 35 gallons per minute is guaranteed to the City.

(i) Unforeseen failures of pressure or supply due to supply line breaks, power failure, or other causes beyond East Central's control or other items identified as Force Majure, shall excuse East Central from this obligation for such reasonable period of time as may be necessary to restore service. In the event of an extended shortage of suitable water to East Central, which is beyond the control of East Central, East Central may reduce the amount of water available to the City equal to the proportionate decrease to other

users in East Central's system. This Section is to be given force in conjunction with, and in no way supersedes the Force Majure clause herein.

1.4 **Water Quality.** The water delivered shall additionally meet all potable water purity standards as established by the North Dakota Department of Health.

1.5 **Minimum Purchase.** As consideration for East Central agreeing to pay for half the local cost share for this Project, the City agrees to purchase its entire water supply from East Central for all water distributed through the City's infrastructure to any City customers until such time as all local cost share obligations of either East Central or the City are paid off. The City will not purchase any other water from any other water supplier for distribution to City customers unless and until the entire Project Costs and all loans associated therewith are paid off. This requirement to purchase the entirety of the City's water supply from East Central will continue so long as any East Central infrastructure is used as collateral for any debt incurred with regard to this Project or as long as any loans are outstanding. Nothing in this paragraph waives any franchise protection rights of East Central.

1.6 **Compliance with Laws**. The City hereby represents that this Agreement does not violate any state or federal laws. Further, the City warrants, represents and guarantees that there are no state or federal franchise protection issues that would be violated by this Agreement. If any violations are identified and any damages incurred by East Central, the City will indemnify, defend and hold East Central harmless from any state or federal enforcement action alleging the violation of any franchise protection.

1.7 **Emergency Flows.** Notwithstanding the maximum flow rates identified in this Agreement, it is the policy of East Central to accommodate emergency flow needs of the cities it serves. To the maximum extent possible without compromising the domestic needs of other users, East Central will sell additional reasonably available surplus water to the City if and when needed for temporary emergency water flows. The City will pay East Central for those emergency water flows pursuant to the Price term in this Agreement.

ARTICLE 2.
RATES, COSTS AND BILLING

2.1 **Price.** The City shall initially be billed for water at a rate of $_____ per thousand gallons, which will remain the Price through December 31, 2021. East Central reevaluates its Cost of Service rates periodically and may impose annual rate adjustments to reflect increased costs of service. The parties contemplate that East Central will adjust the water rate to incorporate an inflationary rate equal to 3% annually or a rate that will incorporate any documented increased cost of operation and maintenance incurred by East Central, whichever is greater.

2.2 **Loan**. East Central will agree to finance the City's portion of the local share of Project Costs, so long as the City makes monthly debt service payments ("City Debt Service") to East Central for the duration of the East Central loan repayment term. The monthly City Debt Service will include all debt service payments that East Central makes to its own lender on the City's portion of the Project Costs, inclusive of debt issuance and interest costs, as well as a 1% administration fee to East Central to accommodate the administration of the Project. The

expected City Debt Service amortization is identified in Exhibit B, which may be amended from time to time if the City Debt Service amounts change.

As collateral for the repayment of the City Debt Service, the City pledges all revenue from its water service enterprise to East Central for the repayment of this loan obligation. If the City is unable to pay the City Debt Service and water bill, in addition to all other remedies allowed by law, East Central may provide written notice to the City that the City must increase City customer water rates or impose monthly assessments to City customers within 60 days in order to generate funds for the repayment of City Debt Service. If the City does not impose the rate or monthly assessment increase within 60 days, East Central is authorized to temporarily step in as the water service provider to all City customers, set water rates or monthly assessments, send invoices to customers, and collect or otherwise sweep City revenue from City customers in an amount to repay the City Debt Service. If a temporary step in is ever triggered, upon full repayment of the City Debt Service, all City water service refinance its share of the Project Costs at any time, or otherwise prepay its share without any penalty or requirement to reimburse East Central for any portion of the 1% administrative fee.

2.3 **Billing Frequency.** East Central shall bill the City monthly for water delivered to the point of service, for City Debt Service and other Project Costs due as costs arise. The bills submitted to the City shall contain an itemized statement of the amount of water delivered to the City in the previous month.

2.4 **Payment.** All payments from the City shall be made to East Central without discount, deduction, withholding, setoff, or counterclaim, in United States Dollars in immediately available funds on or before the payment due date set forth in the applicable invoice or billing statement.

2.5 **Delinquency and Late Charges.** Any water bill or City Debt Service invoice remaining unpaid by the City for 30 days after the stated due date is subject to a late payment charge of 1.75% per month until paid in full. If payment remains overdue by 90 days, East Central reserves the right to discontinue delivery of water. Any discontinuation will not relieve the City from the obligation to pay applicable late charges, City Debt Service or other Project Costs. Upon payment of all outstanding bills to bring obligations current, East Central shall resume water delivery to the City.

ARTICLE 3.
INFRASTRUCTURE

3.1 **East Central's Construction and Payment Obligations.**

(i) Subject to Section 3.1(ii), East Central will provide all infrastructure necessary to deliver the volume of water identified in Section 1.1 to the delivery point ("Service Location"), located in the City's existing ground storage reservoir or another mutually agreeable location in Portland. The cost of the infrastructure to bring water to the Service Location will be cost shared by the City and East Central, with each party paying 50% of the local share of reimbursable costs, plus 50% of any non-reimbursable costs that are not covered by any state cost share. If no State grant is approved for this

Project or if the grant is terminated, East Central's contribution to the Project will be a maximum of 12.5% of the total Project Costs if the City chooses to move forward without grant funding.

(ii) East Central shall install an isolation valve and meter pit at the Service Location if necessary to house the City's meter. East Central shall own and maintain all infrastructure up to the Service Location, including the isolation valve.

(iv) It is East Central's obligation to maintain its infrastructure up to the connection point to the Portland reservoir. Operation and maintenance costs include the following: utility service fees, labor, chemicals, equipment maintenance, instrumentation and controls maintenance, pipeline locating services, pipeline repair, pipeline relocation, permit fees, maintenance and repair of metering facilities, insurance, and staffing. Costs of operation and maintenance of the system will otherwise be incorporated into the water rate.

(v) East Central is responsible for the construction and insurance of its owned facilities as identified in this Agreement, including adequate insurance for all employees. East Central will assure that all of its employees, agents, or contractors who may be working at or on the construction of the Project, including any City-owned components of the Project, are adequately covered by East Central's insurance and applicable private or state-provided worker's compensation policies;

(vi) The parties agree that this Agreement may be used as collateral security for any loan made to East Central for financing other projects.

3.2 **The City's Obligations.**

(i) The City shall own and be responsible for all operation, maintenance, repair and replacement of all infrastructure on the City's side of the East Central connection point with the City's infrastructure.

(a) The City's obligation to maintain its own infrastructure shall include the following operation and maintenance costs: utility service fees, labor, chemicals, equipment maintenance, instrumentation and controls maintenance, pipeline locating services, pipeline repair, pipeline relocation, permit fees, maintenance and repair of meters and metering facilities, insurance, and staffing;

(b) The City is responsible for the construction and insurance of its owned or leased facilities as identified in this Agreement, including adequate insurance for all employees. The City will assure that all of its employees, agents, or contractors who may work on the facilities owned or operated by East Central are adequately covered by the City's insurance and applicable private or state-provided worker's compensation policies.

(ii) The City will carry out any construction, operation and maintenance of the facilities constructed pursuant to this Agreement in a safe and efficient manner, and in accordance with all rules of East Central, and any federal, state, or local governmental or agency rules. The parties shall collaborate in obtaining any necessary permits, licenses, or other similar authorizations.

(iii) The City shall not permit any connection to East Central's distribution system that would expose East Central's system to any source of potential contamination, or which allows water to be returned to East Central's system.

(iv) The City shall permit reasonable access to East Central to inspect infrastructure related to this Agreement, and to perform meter readings or repairs.

(v) The City is obligated to contribute, in the same cost share percentage applicable per Exhibit A, for any capital expenses incurred for improvements that are deemed necessary by East Central to accomplish the water delivery identified herein. East Central will provide notice to the City and consider any input from the City regarding the same.

(vi) Notwithstanding any other provision of this Section, East Central shall repair, operate and maintain any meter applicable to delivery of water under this Agreement. The City will be responsible for purchasing the meter at its own cost, but East Central will install the meter as part of the Project Cost. The City is responsible for any damage to the meter caused by the City, its agents, employees, contractors, or assigns.

ARTICLE 4.

EASEMENTS AND INFRASTRUCTURE USE

4.1 **Easements.** The City agrees to furnish, at no cost to East Central, all easements and rights-of-way on any City-owned property or within any utility corridors necessary for the construction and maintenance of water lines and appurtenances necessary to deliver water to the City. If East Central is required to pay for easements from private parties as part of this Project, the cost of the easements and any litigation required to obtain the easements, will be deemed Project Costs for purposes of this Agreement.

ARTICLE 5.

TERM AND EFFECTIVE DATE

5.1 **Binding Obligation.** The parties shall be bound by the terms of this Agreement upon execution by both parties.

5.2 **Effective Date.** The Effective Date of this Agreement, for purposes of calculating the Agreement's Term, shall be determined as January 1, 2022.

5.3 **Term.** This Agreement shall expire thirty years from the Effective Date or on the date of the last debt payment in connection with this Agreement, whichever is later.

5.4 **Renewal.** The parties may renew this Agreement upon expiration, by conduct or by written agreement. In the absence of a written renewal agreement:

(i) This Agreement will be deemed to continue on a month-to-month basis so long as the City accepts water delivery from East Central following the expiration of the Term;

(ii) Rates to be charged for this water delivery shall be calculated in the same manner as that provided herein, with the expectation that all water delivered to the City will be paid for.

5.5 **Early Termination – The City.** The City shall have the right to terminate this Agreement at any time, and for any reason, prior to the expiration of the Term. Early termination by the City shall be subject to the following:

(i) The City shall provide East Central with at least six months' advance written notice of its intent to terminate;

(ii) The City can accelerate the termination of this Agreement by obtaining independent financing to pay off the debt obligations the City and any portion of local cost share of Project Costs that East Central has outstanding, in addition to any other costs incurred by East Central in order to facilitate water delivery to the City. Upon reasonable request by the City, East Central shall provide information regarding total debt remaining and amortization schedules, in order for the City to evaluate its potential repayment obligation at any point during the Term of this Agreement;

(iii) In the six months following any notice to terminate, the City agrees to satisfy all of its outstanding Project Cost obligations resulting from this Agreement. This Agreement will not terminate until the City satisfies this debt and any outstanding water bills, regardless of any early termination notice given by the City.

(iv) The City's obligation and agreement to satisfy its debt obligations shall not be affected in any manner by any private or government grants received by East Central.

5.6 **Early Termination – East Central.** East Central shall have the right to terminate this Agreement prior to the expiration of the Term, upon the following conditions:

(i) If any bills and/or late charges assessed under this Agreement remain unpaid three months after they were first invoiced to the City;

(ii) A failure by the City to provide the necessary access to City infrastructure in order to connect the East Central and City's distribution systems.

(iii) Any tampering or manipulation of the meters by the City, its employees, or its agents, that materially misrepresents the volume of water delivered to the City, or the amount of money due from the City to East Central;

(iv) Fraud or abuse by the City.

If the Agreement is terminated under this Section, the City's obligations under Section 5.5 shall become immediately due.

ARTICLE 6.
NO WARRANTIES; LIMITATION ON LIABILITY, INDEMNITY

6.1 No Warranty. **THE PROVISION OF WATER SERVICE AND ALL SALES OF WATER BY EAST CENTRAL TO THE CITY ARE MADE BY EAST CENTRAL "AS IS" AND WITHOUT WARRANTY OF ANY KIND FROM EAST CENTRAL EXCEPT AS OTHERWISE PROVIDED HEREIN. EAST CENTRAL MAKES NO EXPRESS OR IMPLIED WARRANTIES OF ANY KIND WITH RESPECT TO THE WATER SERVICE OR THE WATER SOLD, EXCEPT THAT IT MUST MEET STATE HEALTH QUALITY STANDARDS AT THE SERVICE LOCATION. EAST CENTRAL SPECIFICALLY DISCLAIMS ALL EXPRESS AND IMPLIED WARRANTIES OF ANY KIND, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.**

6.2 Limitation of Liability. **EAST CENTRAL SHALL NOT BE LIABLE TO THE CITY FOR ANY LOST PROFITS, ANY INDIRECT, INCIDENTAL, CONSEQUENTIAL, SPECIAL, PUNITIVE OR SIMILAR DAMAGES, OR ANY CLAIMS OR DEMANDS BROUGHT AGAINST THE CITY, HOWEVER CAUSED AND UNDER ANY THEORY OF LIABILITY, INCLUDING, WITHOUT LIMITATION, NEGLIGENCE, STRICT LIABILITY, OR BREACH OF CONTRACT OR WARRANTY, EVEN IF EAST CENTRAL IS ADVISED OF THEIR POSSIBILITY. THIS LIMITATION OF LIABILITY SHALL NOT APPLY TO INTENTIONAL, WILLFUL, OR WANTON ACTS ON BEHALF OF EAST CENTRAL, BUT SHALL APPLY TO ALL OTHER MANNER OF LIABILITY.**

6.3 **Indemnity.** The City shall indemnify, defend, and hold East Central and its directors, officers, employees, agents, and attorneys (collectively, the "**Indemnified Parties**") harmless against any and all claims, liabilities, judgments, injuries, losses, damages, costs, and expenses (including, without limitation, reasonable attorneys' fees) which may be incurred by, asserted against, or imposed on any Indemnified Party, whether direct or indirect and regardless of whether caused by, or within the control of, the City or any other person or entity, arising from, by virtue of, or in connection with: (i) any act or failure to act in the handling, storage, transportation, or other use by the City or others (excepting only the Indemnified Parties) of water sold by East Central to the City; (ii) any misrepresentation or omission by the City in this Agreement or any other application, communication, or agreement submitted to or with East Central; (iii) the acts or omissions of the City or its officers, directors, employees, agents, contractors or other representatives, (iv) the installation, maintenance, or operation of the City's piping, equipment, or other apparatus connected to East Central's distribution system; or (v) any other breach by the City of this Agreement. The City shall not be obligated to indemnify the Indemnified Parties against any claim, liability, judgment, injury, loss, damage, cost or expense identified above to the extent such claim, liability, judgment, injury, loss,

damage, cost or expense is determined by a court of competent jurisdiction to have been caused by the intentional, willful, or wanton acts of East Central.

ARTICLE 7.
FORCE MAJEURE

7.1 **Failure to Perform Excused.** Neither party shall be liable for any delay or failure to perform under this Agreement due solely to conditions or events of Force Majeure, as that term is specifically defined in this Agreement; provided that: A) the non-performing party gives the other parties prompt written notice describing the particulars of the occurrence of the Force Majeure; B) the suspension of performance is of no greater scope and of no longer duration than is required by the force majeure event or condition; and C) the non-performing party proceeds with reasonable diligence to remedy its inability to perform and provides regular progress reports to the other party describing the actions taken to remedy the consequences of the Force Majeure event or condition. **"Force Majeure"** shall mean any delay or failure of a party to perform its obligations under this Agreement beyond the party's reasonable control, not upon request or lobbying of any party, and without the fault or negligence of the party, including, without limitation:

(i) changes in state or federal law or administrative practice concerning, water rights administration, water quality, or stream flow requirements;

(ii) acts of God;

(iii) sudden actions of the elements such as floods, earthquakes, storms, or tornadoes;

(iv) sabotage;

(v) vandalism beyond that which can be reasonably prevented by the party;

(vi) terrorism;

(vii) war or blockades;

(viii) riots or insurrection;

(ix) fire;

(x) explosion;

(xi) unusual extreme weather conditions;

(xii) actions by federal, state, municipal, or any other government or agency (including but not limited to, the adoption or change in any rule or regulation or environmental constraint imposed by federal, state or local government bodies) but only if such requirements, actions, or failures to act prevent or delay performance, and only if the actions are not initiated or otherwise encouraged by any of the parties;

(xiii) inability, despite due diligence, to obtain required licenses, permits or approvals;

(xiv) power or infrastructure failures beyond the control of the parties.

In the event a Force Majeure event or condition prevents East Central from delivering any of the agreed-upon amounts of water, East Central will not be entitled to any payment for water that is not delivered, however the City Debt Service payments must continue to be made in a timely manner regardless of whether any water is being delivered. In no event will any delay or failure of performance caused by any conditions or events of Force Majeure extend this Agreement beyond its stated term.

ARTICLE 8.
GENERAL PROVISIONS

8.1 **Entire Agreement; Prior Agreements Superseded.** This Agreement represents the entire agreement between the parties as to the delivery of water from East Central to the City. Any prior agreements between the parties are superseded and are no longer in force.

8.2 **No Partnership.** This Agreement shall not be deemed to create any partnership, joint venture, agency, joint powers authority or any similar relationship between the parties.

8.3 **Modification.** This Agreement may only be modified by the written agreement of both parties.

8.4 **Written Notices.** Any written notice required under this Agreement shall be deemed properly served if hand-delivered or sent by certified mail, return receipt requested.

8.5 **Non-Assignment/Sublease.** Neither party may assign their rights or delegate their duties under this Agreement without the prior written consent of the other party, which will not be unreasonably denied. If an assignment is permitted, the assigning party shall give reasonable notice and time to the other parties to arrange for an appropriate transition.

8.6 **Successors and Assigns.** This Agreement shall be binding on all successors or assigns of either party.

8.7 **Choice of Law/Venue.** This Agreement shall be governed by the laws of the state of North Dakota. Any dispute arising out of this Agreement shall be brought in the state or federal courts encompassing Traill County, North Dakota, as proper jurisdiction may lie.

8.8 **Delay/Waiver.** No delay by either party in the exercise of any right or remedy shall operate as a waiver of that right or remedy, and no single or partial exercise by either party of any right or remedy shall preclude other and further exercise of that right or remedy, or the exercise of any other right or remedy. All remedies provided under this Agreement and those provided by law are cumulative.

8.9 **Severability.** The provisions of this Agreement are severable, and in the event that any one or more provisions are deemed illegal or unenforceable, the remaining provisions will remain in full force and effect.

8.10 **Review by Counsel.** Both parties agree that they have had this Agreement reviewed by counsel of their own choosing, or otherwise have had the full opportunity to have this Agreement reviewed by such counsel. For purposes of interpreting the meaning of any of the terms of this Agreement, this Agreement shall be deemed to have been jointly drafted by both parties.

8.11 **Attorney's Fees.** Each party agrees to pay to the prevailing party its reasonable attorney's fees incurred in any suit or action instituted by either party to enforce the provisions of this Agreement.

8.12 **Headings for Convenience.** Headings and titles contained in this Agreement are intended for the convenience and reference of the parties only and are not intended to confine, limit, or describe the scope of intent of any provision of this Agreement.

8.13 **Counterparts.** This Agreement may be executed in one or more counterparts, all of which taken together shall constitute one instrument. This Agreement may be signed by facsimile, PDF, or other electronic means, and such signatures shall be as binding on the party providing the same as original signatures.

Background: ECRWD provides bulk water supply to Portland's ground storage reservoir through an 8-inch pipeline. The Portland storage reservoir is roughly 150,000 gallons of storage. The fill line that extends from the 8-inch pipeline into the existing Portland storage is a 4-inch pipeline and is further necked down with a smaller meter and fill valve before entering the reservoir. The 4-inch pipeline and necked down meter/valve provide only smaller flows into the Portland Reservoir. However, if the fill pipeline, meter, and valve were upsized to a 6/8-inch, ECRWD could provide Portland 650 GPM at a residual pressure of 45 PSI. The estimate to upsize the fill line, meter and PRV, is equal to $35K.

The booster station on the edge of Mayville has a dual source feed, one feed is from a bulk feed from the Mayville Distribution system, which is fed by the Mayville WTP. The Mayville WTP has a 600 GPM capacity WTP and 750,000 gallons of storage. The other source comes from ECRWD Reservoir 7, which is fed/bypassed from the ECRWD WTP. A 12-inch pipeline extends from the ECRWD Reservoir 7 to the ECRWD Booster station on the edge of Mayville. The 12-inch pipeline has a capacity of 750 GPM at a residual pressure of 45 PSI.

ECRWD also operates another reservoir/pump station 5-miles southwest of Portland. The storage of the pump station is roughly 250,000 gallons with 200,000 gallons being operational.

A request for 1500 gpm for a 2-hour pumping duration has been requested by Portland and DWR. To honor the request, ECRWD will provide a cost estimate and basic items required to get the flow to the existing WTP location. While an apples-to-apples comparison is warranted, ECRWD will also, provide two additional flows. The 2nd being 1250 GPM, which is (150,000 gallons/120 minutes) this flow rate will mimic a full 150,000-gallon tower. The 3rd flow would be 625 GPM for emergency flow and 150 gpm for domestic use. The 625 GPM represents a half-full tower, and the 150 GPM would provide domestic usage over a 2-hour period.

The Portland reservoir pumps are never used within the analysis, however, by ECRWD upsizing the fill line, meter, and valve at the Portland reservoir and tying into the existing discharge, ECRWD would be able to fill the town on bypass and therefore allowing the pumps at Portland to not have to be in use.

For all analysis, the model is running under peak hour conditions. Delivery pressure at the Portland tower site is always 48 PSI or greater. While there are several ways the water could enter the system, this high-level analysis, would have a PRV/flow control valve at the tower location. This would allow the pipelines from ECRWD to always have pressure on the system and would allow Portland to control the pressure and flow rate.

The vault and addition of the By-pass at Portland Reservoir would allow the pumps to be decommissioned or only run as necessary. The vault at the Tower site would not require power or heat, but if warranted could be added.

All options include upsizing fill pipeline, valve and meter at Portland Reservoir and adding a 150-gpm bypass.

1500 GPM Option

Roseville Township Reservoir/Pump Station Option

- Pump Station
    - Discharge pressure = 105 PSI
    - Addition of bowls to 4-pumps
    - New Discharge line out of 200K
- Pipeline
    - 12-inch from 200K to Portland Reservoir
        - 24,000 feet
        - Flow = 1600 GPM
- Portland Tower
    - Residual pressure = 48 PSI
    - Concrete vault and PRV valve at tower site.

Total Project Estimate 2021 prices - $1.25M ($950K 2020 Dollars)

Booster Station Option

- Storage
    - Mayville Storage = 750, 000 Gallons
    - ECRWD Storage = 50,000 Gallons
- Pump Station
    - Discharge pressure = 105 PSI
    - Addition of 1 – pump and piping
    - 750 GPM from ECRWD
    - 950 GPM from Mayville (Need to Flow Test)
- Pipeline
    - 10-inch from ECRWD Booster to Portland Reservoir Area
        - 13,000 feet
    - 12-inch from Portland Reservoir to Tower
        - 5,000 feet
- Portland Tower
    - Residual Pressure 48 PSI
    - Flow = 1,500 GPM
    - Concrete vault and PRV valve at tower site.

Total Project Estimate 2021 prices - $950K (800K 2020 Dollars)

Booster Station/200K Storage Option

- Storage

- Mayville Storage = 750, 000 Gallons
- ECRWD Res 7 Storage = 50,000 Gallons
- ECRWD Reservoir = 200,000 Gallons

- Pump Station
  - Discharge pressure = 105 PSI
  - Addition of bowls on 4-pumps at 200K
  - Addition of bows on Mayville Booster
  - 650 GPM from ECRWD 200K
  - 950 GPM from ECRWD Mayville Booster
- Pipeline
  - 8-inch from ECRWD 200K to Portland Tower
    - 24,000 feet
  - 8-inch from Mayville Booster to Portland Tower
    - 18,000 feet
- Portland Tower
  - Residual Pressure 48 PSI
  - Flow = 1,500 GPM
  - Concrete vault and PRV valve

Total Project Estimate 2021 prices - $1.1M (900K 2020 Dollars)

All options include upsizing fill pipeline, valve and meter at Portland Reservoir and adding a 150-gpm bypass.

<u>1250 GPM Option (150,000 full tower over 2-hours)</u>

Roseville Township Reservoir/Pump Station Option

- Storage
  - Reservoir Dimensions 82' x 42' x 10'
    - Operates from 8 to 9.5'
    - Operational storage = 200,000 gallons
- Pump Station
    - Discharge pressure = 105 PSI
    - New Discharge line out of 200K
- Pipeline
    - 10-inch from 200K to Portland Tower
      - 24,000 feet
      - Flow = 800 GPM
    - 6-inch from Portland Reservoir Area
      - 5,000 feet
      - Flow = 450 GPM
- Portland Tower
    - Residual pressure = 48 PSI
    - Concrete vault and PRV valve at tower site.
    - 1250 GPM

Total Project Estimate 2021 dollars - $1.00M ($850K 2020 Dollars)

Booster Station Option

- Storage
  - Mayville Storage = 750,000 Gallons
  - ECRWD Storage = 50,000 Gallons
- Pump Station
    - Discharge pressure = 105 PSI
    - Addition of 1 – pump and piping
    - 725 GPM from ECRWD
    - 725 GPM from Mayville (Need to Flow Test)
- Pipeline
    - 8-inch from ECRWD Booster to Portland Reservoir
      - 13,000 feet
    - 12-inch from Portland Reservoir to Tower
      - 5,000 feet
- Portland Tower
    - Residual Pressure 48 PSI
    - Flow = 1,250 GPM

Concrete vault and PRV valve at tower site.

Total Project Estimate 2021 dollars - $1.05M (850K 2020 Dollars)

Booster Station/200K Storage Option

- Storage
    - Mayville Storage = 750, 000 Gallons
    - ECRWD Res 7 Storage = 50,000 Gallons
    - ECRWD Reservoir = 200,000 Gallons

- Pump Station
    - Discharge pressure = 105 PSI
    - Addition of bowls on Mayville Booster
    - 300 GPM from ECRWD 200K
    - 950 GPM from ECRWD Mayville Booster
- Pipeline
    - 6-inch from ECRWD 200K to Portland Tower
        - 24,000 feet
    - 6-inch from Mayville Booster to Portland Reservoir Area
        - 13,000 feet
    - 12-inch from Mayville Booster to Portland Tower
        - 5,000 feet
- Portland Tower
    - Residual Pressure 48 PSI
    - Flow = 1,250 GPM
    - Concrete vault and PRV valve at tower site.

Total Project Estimate 2021 dollars - $1.2M (1.0M 2020 Dollars)

Include upsizing fill pipeline, valve and meter at Portland Res. and adding a 150-gpm bypass.

75,000 Gallons over 2-hour period = 625 GPM for Emergency and 150 GPM Domestic

Roseville Township Reservoir/Pump Station

- Storage
    - Reservoir Dimensions 82' x 42' x 10'
        - Operates from 8 to 9.5'
        - Operational storage = 200,000 gallons
- Pump Station
        - Discharge pressure = 105 PSI
        - New Discharge line out of 200K
- Pipeline
        - 6-inch from 200K to Portland Tower
            - 24,000 feet
            - Flow = 300 GPM
        - 6-inch from Portland Reservoir Area to Tower
            - 5,000 feet
            - Flow = 450 GPM
- Portland Tower
        - Residual pressure = 48 PSI
        - Concrete vault and PRV valve at tower site.
        - 625 = GPM
        - Portland Reservoir By-Pass 150 GPM

Total Project Estimate 2021 Dollars - $680K ($550K 2020 Dollars)

Booster Station Option

- Storage
    - Mayville Storage = 750, 000 Gallons
    - ECRWD Storage = 50,000 Gallons
- Pump Station
        - Discharge pressure = 105 PSI
- Pipeline
        - 8-inch from ECRWD Booster to Portland Reservoir Area
            - 13,000 feet
        - 12-inch from Portland Reservoir Area to Tower
            - 5,000 feet
- Portland Tower
        - Residual Pressure 48 PSI
        - Flow = 625 GPM
        - Portland Reservoir By-Pass Flow = 150 GPM
        - Concrete vault and PRV valve at tower site.

Total Project Estimate 2021 Dollars - $650K ($500K 2020 Dollars)

Water Development Plan: None
Plan Priority: N/A

H2

20390 - Fargo Regional Water System Distribution Extensions

Application Details

Funding Opportunity:
19214-2022 Infrastructure Request

Funding Opportunity Due Date: Dec 31, 2022 3:00 PM

Program Area:
Funding for Infrastructure in ND - FIND

Status: Under Review

Stage: Final Application

Initial Submit Date: Jan 7, 2022 3:26 PM

Initially Submitted By: Abby Ritz

Last Submit Date:

Last Submitted By:

Contact Information

Primary Contact Information

Active User*: Yes

Type: External User

Name: Salutation Abby
First Name
Middle Name Ritz
Last Name

Title:

Email*: abby.ritz@ae2s.com

Address*: 1815 Schafer Street, Suite 301

Organization Information

Status*: Approved

Name*: City of Fargo

Organization Type*: Political Subdivision

Tax Id: 45-6002069

Organization Website:

Address*: 435 14th Ave S

AE2S

Bismarck North Dakota
City State/Province

58501
Postal Code/Zip

Phone*: 701-221-0530 Ext.
Phone
###-###-####

Fax: *###-###-####*

Comments:

Fargo North Dakota
City State/Province

58103-0000
Postal Code/Zip

Phone*: (701) 241-1310 Ext.
###-###-####

Fax: *###-###-####*

Benefactor:

Vendor ID:

PeopleSoft Supplier ID:

Comments:

Location Code:

SAM.gov Entity ID:

SAM.gov Name:

SAM.gov Entity ID Expiration Date:

State Issued ID:

Category #:

Year Begin:

Year Closed:

NCES#:

Restricted Indirect Cost Rate: 0.0%

Unrestricted Indirect Cost Rate: 0.0%

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study Name*: Fargo Regional Water System Distribution Extensions

Sponsor(s)*: City of Fargo

County*: Cass

City*: Fargo

Description of Request*: New

If Study, What Type:

If Project/Program, What Type: Municipal Water Supply

Jurisdictions/Stakeholders Involved*:

City of Fargo, Cass Rural Water District

Specific Needs Addressed By the Project, Program or Study*:

This project provides distribution system extensions for Fargo to be able to provide increased regional service to CRWD and also supports industrial growth in north Fargo by improving fire flows and providing water main redundancy through a looped system.

Description of Problem or Need and How Project Addresses that Problem or Need.

Description of Problem*:

CRWD has recently expressed interest in adding additional bulk connections on the north and south sides of the City due to limited remaining capacity in CRWD?s system. Additionally, Fargo is experiencing substantial industrial growth on the north side of the City with the recent construction of an Amazon Fulfillment Center and interests to develop from multiple other companies. The industrial area has poor fire flows due to it being located on a dead end of the distribution system.

For this project,

Choose City, County or Water District*:	City
What is the Current Estimated Population?*:	168878
For this project,	
What is the Benefited Population?*:	5475
Has Feasibility Study Been Completed?*:	N/A
Has Engineering Design Been Completed?*:	No
Have Assessment Districts Been Formed?*:	Ongoing
Have Land or Easements Been Acquired?*:	No
Has Sediment Analysis For Reconstruction Of An Existing Drain Been Completed?*:	N/A
Extraterritorial Jurisdiction?*:	No
Have You Applied For Any Federal Permits?*:	N/A
If Yes or Ongoing, Please Explain (include type/number):	
Have You Applied for any State Permits?*:	N/A
If Yes or Ongoing, Please Explain (include type/number):	

Have You Applied for any Local Permits?*: N/A

If Yes or Ongoing, Please Explain (include type/number):

Briefly explain the level of review the Project/Program/Study has undergone.

Level Review*:

A hydraulic modeling analysis has been conducted utilizing both the Fargo and Cass Rural Water District distribution system models. The model analysis identified the need for distribution system extensions (including pipe size and optimal connection locations) to provide expanded regional service to Cass Rural Water District and improve available fire flows to support industrial growth.

Do You Expect Any Obstacles To Implementation (i.e. problems with land acquisition, permits, funding, local opposition, environmental concerns, etc.)?

Obstacles*: Yes

If Yes, Please Explain:

Land Acquisition - Small parcel required for master meter pit. Permits - R.O.W needs to be acquired for majority of pipeline route. Permit needed for I-29 crossing and legal drain crossing.

Have you received, or do you anticipate receiving federal funding?

Federal Funding*: No

Implementation Timelines

Study*: 03/2022
Month/Year (00/0000)

Design*: 05/2022
Month/Year (00/0000)

Bid*: 12/2022
Month/Year (00/0000)

Construction Start*: 04/2023
Month/Year (00/0000)

Construction Completion*: 11/2023
Month/Year (00/0000)

Explain Additional Timeline Issues*:

No timeline issues anticipated.

Certification

Submitted by*: Abby Ritz 01/07/2022
First Name Last Name Date

Address*: 1815 Schafer Street, Suite 301
Address Line 1
Address Line 2
Bismarck North Dakota 58501-1217
City State Zip Code

Telephone Number*: 701-221-0530

Sponsor Email*: abby.ritz@ae2s.com

Consulting Engineer*: Ryan Grubb

Engineer Telephone Number*: 701-364-9111

Engineer Email*: Ryan.Grubb@AE2S.com

This section needs to be completed by the project sponsor.
I certify that, to the best of my knowledge, the provided information is true and accurate.

Certify*: Yes

Authorized Individual*: Abby Ritz 01/07/2022
First Name Last Name Date

Documentation

Documentation

Project Specific Map
(Including an inset map of location within state.)
CLICK HERE **to see examples.**

Project Specific Map*:

SWC Cost Share App - Fargo Regional Water System Distribution Extensions_Final.pdf

Are You Seeking Department of Water Resources Cost-Share?*: Yes

CLICK HERE **for SFN 61801 Delineation of Costs.**

Delineation of Costs SFN 61801: Project Cost Estimate.xlsx

Type of Request: Preconstruction

Water Supply Projects?: Yes

CLICK HERE **for Life Cycle Cost Analysis Instructions.**

Life Cycle Cost Analysis: life_cycle_cost_analysis_worksheet.xlsx

CLICK HERE **for SFN 61938 Capital Improvement Plan.**

Capital Improvement Plan SFN 61938: sfn_61938_capital_improvement_plan 5.xlsx

Rural Flood Control?: No

Drain Reconstructions?: No

Flood Recovery Property Acquisition?: No

Community Flood Control, Rural Flood Control, Bank Stabilization, or Snag & Clear Project With Total Cost of $200,000 or More?: No

Feasibility/Engineering Study for the Proposed Project or Other Applicable Documents: No

Engineering Total Cost of $35,000 or More?: Yes

Engineering Selection Documentation: City Commission Approval for 5-year Agreement.pdf

Sources

Funding Amount Requested

State FY1	State FY2	Beyond State FY2	Total Cost Source	Type	Term	Interest Rate
$171,897.00	$1,354,548.36	$2,289,668.04	$3,816,113.40		0.00	0.00
$171,897.00	**$1,354,548.36**	**$2,289,668.04**	**$3,816,113.40**			

Other Funding Sources

Type	Source	Grant or Loan	State FY1	State FY2	Beyond State FY2	Total Other Sources
State	DWSRF	Loan	$114,598.00	$903,032.00	$1,685,536.00	$2,703,166.00
			$114,598.00	**$903,032.00**	**$1,685,536.00**	**$2,703,166.00**

Project Total

Current Requested Amount:	$3,816,113.40
Other Funding Sources:	$2,703,166.00
Total Project:	$6,519,279.40

Preconstruction 60% - $172,000

THE CITY OF Fargo
FAR MORE

Water Treatment Plant
435 14th Avenue South
Fargo, ND 58103
Office: 701.241.1469 | Fax: 701.241.8110
www.FargoND.gov

January 7, 2022

Department of Water Resources
Water Development Division
900 East Boulevard Avenue
Bismarck, ND 58505

Re: Fargo Regional Water System Distribution Extensions Project
DWR Cost-Share Request

The City of Fargo is pleased to submit a cost-share request package in the amount of $3,816,100 (60% of total project costs) for consideration at the February 23rd meeting of the State Water Commission. This project will help expand Fargo's water distribution system to provide increased regional water services for Cass Rural Water District (CRWD) while also supporting industrial growth in north Fargo by improving fire flows and providing water main redundancy through a looped system.

The City of Fargo currently provides water service to outside regional users in West Fargo and a portion of urban CRWD users. Much of Fargo and West Fargo's future growth area falls within the CRWD service area. CRWD is currently in the planning stages for undergoing a system-wide expansion project that would add several users within this growth area. Additionally, CRWD has recently executed a service agreement with the City of Horace to be their water provider. To supplement this system-wide expansion project and provide additional capacity to serve Horace and new users, CRWD has formally requested additional bulk service connections from Fargo on both the north and south side of the City.

In addition to the bulk service connection requests from CRWD, Fargo is experiencing considerable industrial and commercial growth on the north side of the City, including the recent construction of an Amazon Fulfillment Center. The area where this development is occurring has poor fire flows and lacks water service redundancy due to being located on the far edge of the distribution system.

This project primarily consists of water main extensions in Fargo's regional water system to provide expanded water service to CRWD while also providing water service resiliency and improved fire flows to a booming commercial and industrial growth area in north Fargo.

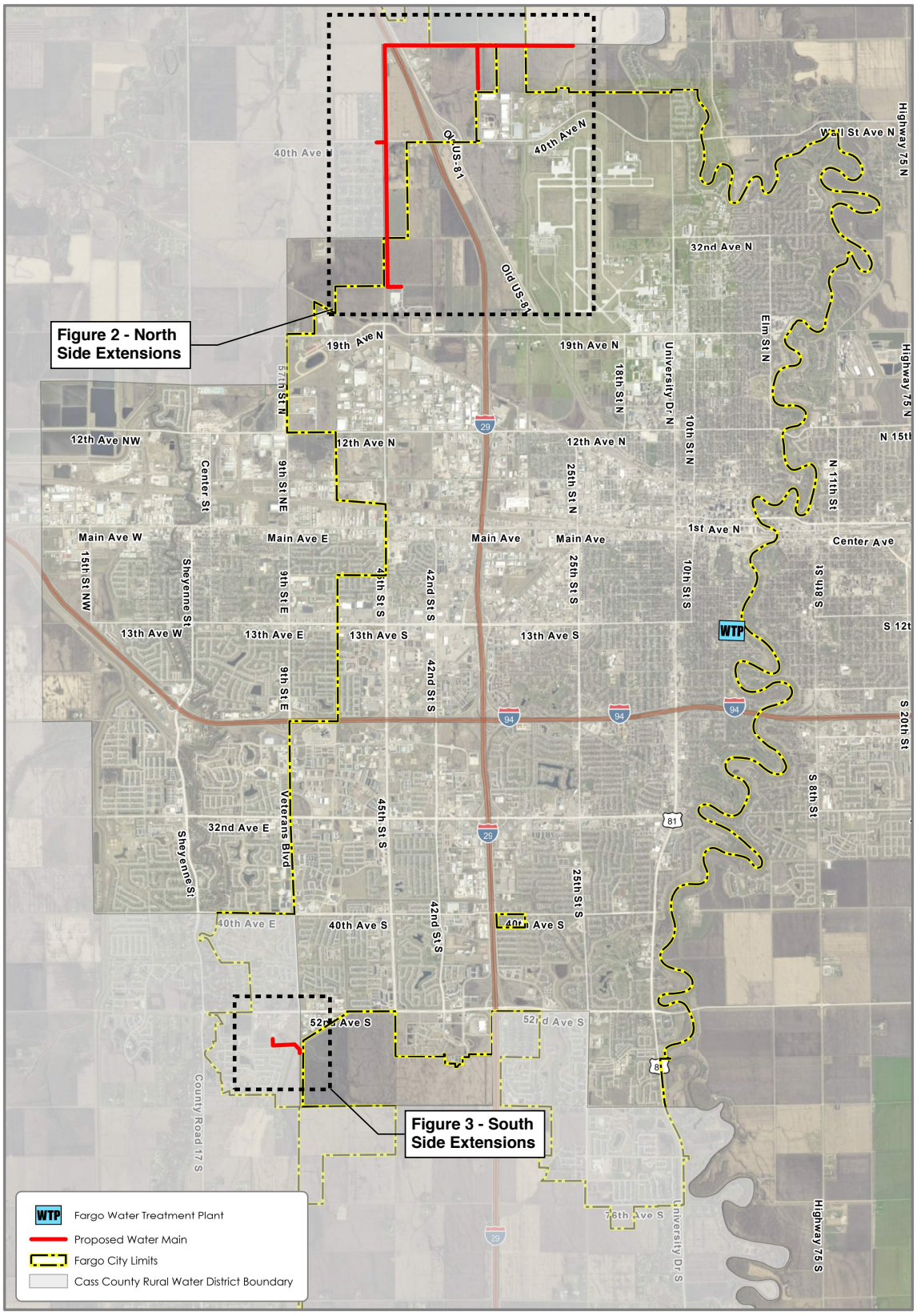
We look forward to continuing our partnership with the Department of Water Resources on the Regional Water System Distribution Extensions project to further expand its regional water system and support commercial and industrial growth that will benefit the State of North Dakota. Please reach out to me if you have any questions or require additional information and we look forward to presenting further details and answering any questions about the project at your February 23rd meeting.

Sincerely,

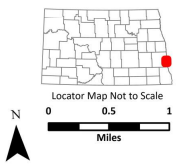
T. B. Hall

Troy B. Hall
Water Utility Director

Enclosures.



Information depicted may include data unverified by AE2S. Any reliance upon such data is at the user's own risk. AE2S does not warrant this map or its features are either spatially or temporally accurate.



Fargo Regional Water System Distribution Extensions

Figure 1 - Project Overview

Cost-Share Application Exhibit

Date: 11/30/2021

THE CITY OF Fargo FAR MORE

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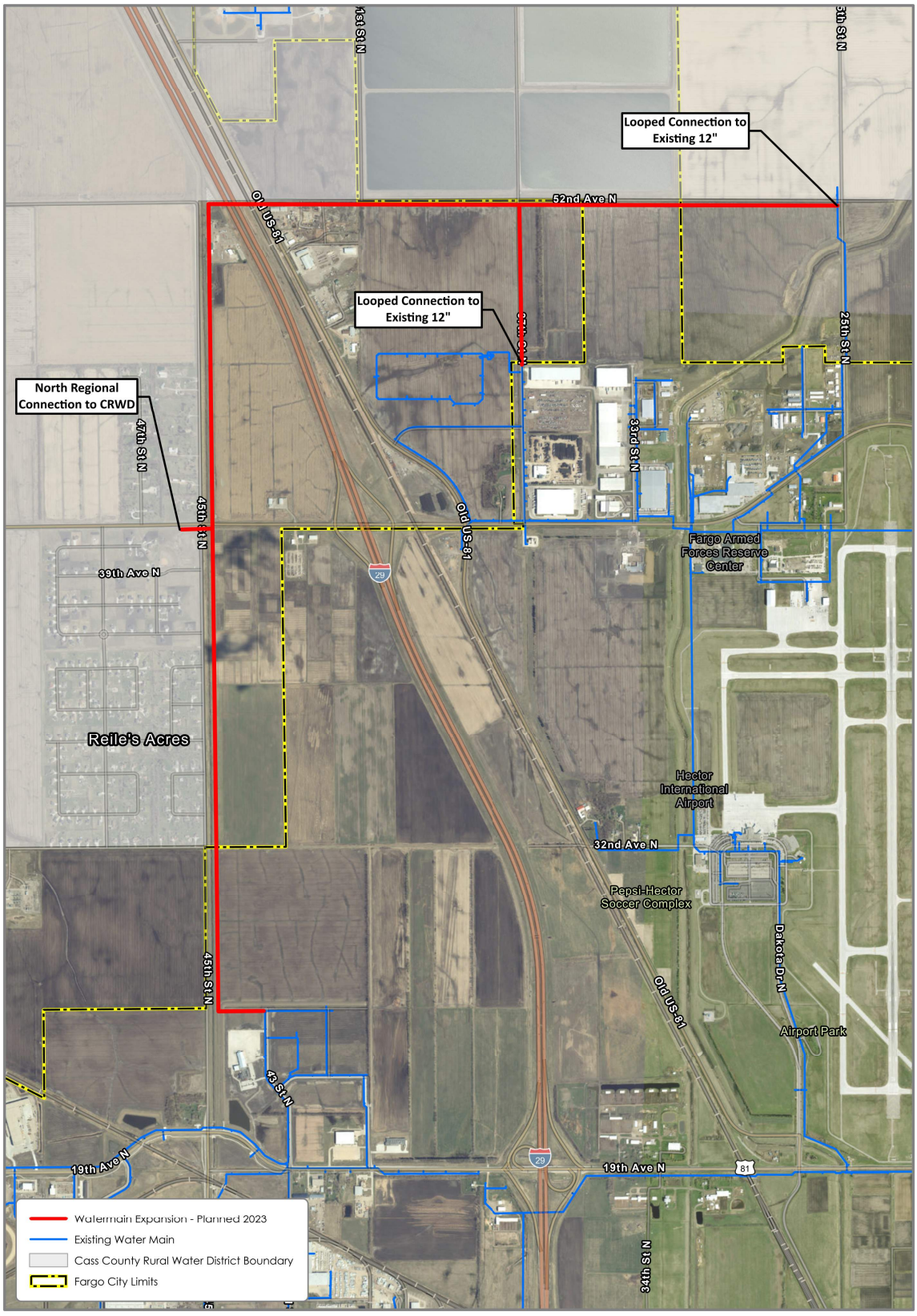

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Locator Map Not to Scale

0 0.15 0.3

Miles

N

Fargo Regional Water System Distribution Extensions

Figure 2 - North Side Extensions

Cost-Share Application Exhibit

Date: 1/5/2022

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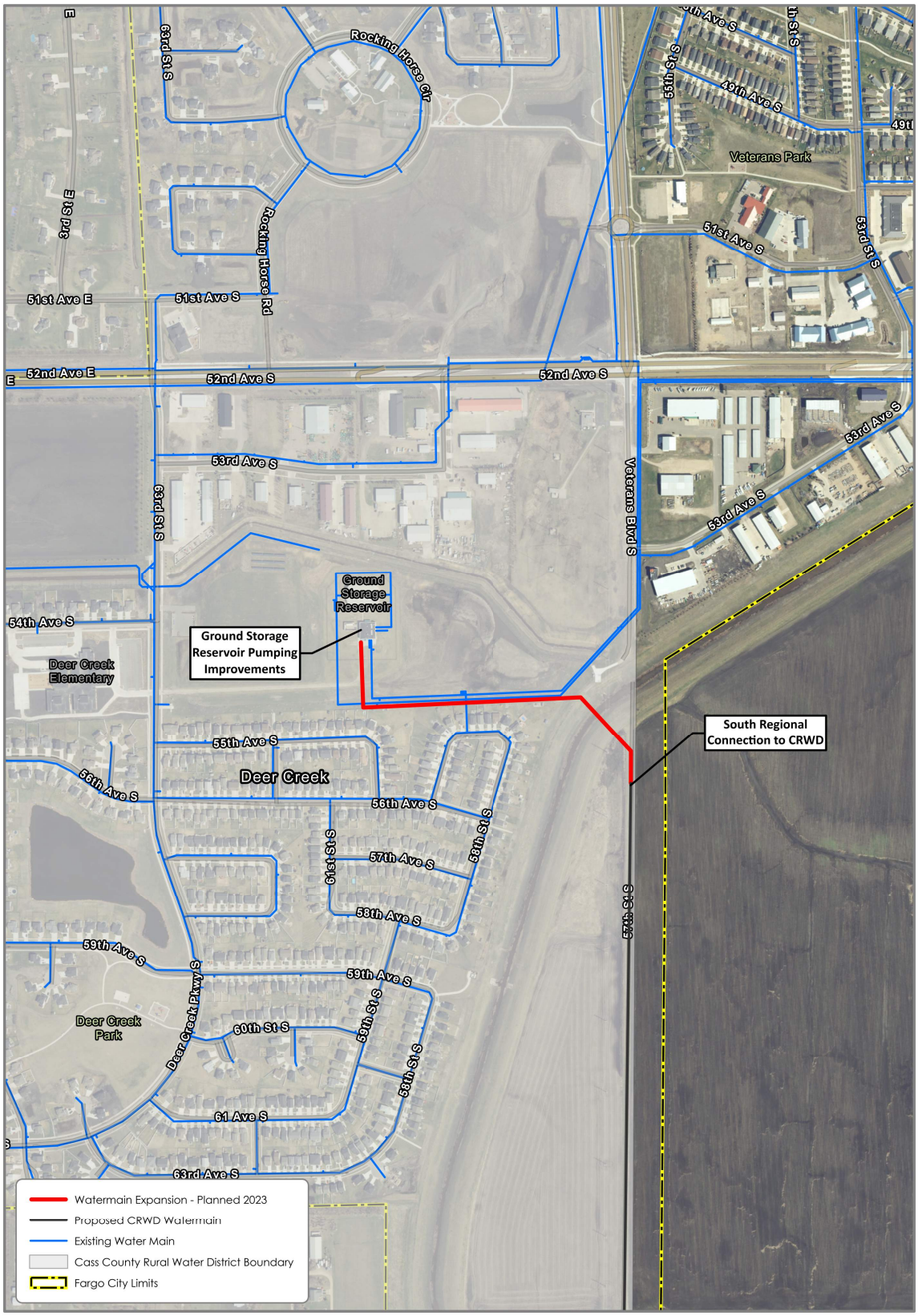

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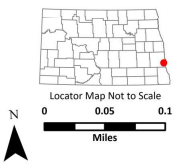


Fargo Regional Water System Distribution Extensions

Figure 3 - South Side Extensions

Cost-Share Application Exhibit

Date: 11/30/2021

THE CITY OF Fargo FAR MORE

DELINEATION OF COSTS
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
PLANNING AND EDUCATION
SFN 61801 (10/2021)

DWR Date Received : January 07, 2022

Project:	Fargo Regional Distribution System Extensions
Sponsor:	City of Fargo
Contact:	Daniel Portlock, City of Fargo
Phone:	701-476-6799
Engineer:	Ryan Grubb, AE2S
Phone:	701-641-0143

Total Cost :	$ 6,519,452
Ineligible Cost :	$ 159,091
Eligible Cost :	$ 6,360,361
Local Cost :	$ 2,703,252

Date: January 6, 2022

	Cost-Share $
Preconstruction :	$ 172,000
Construction :	$ 3,644,216

Project Type:	**Cost-share %**
Municipal Water Expansion/Improvement	60%

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share $ *
		Construction Costs						
1	2.6%	Mobilization	1	LS	150,000.00	$ 150,000	60%	$ 90,000
2	1.0%	Air Release Valve	3	EA	20,000.00	$ 60,000	60%	$ 36,000
3	3.5%	Boring - Non-Cased	500	LF	400.00	$ 200,000	60%	$ 120,000
4	10.5%	Interstate / RR Steel Cased Bore Crossir	800	LF	750.00	$ 600,000	60%	$ 360,000
5	0.3%	Detailed Tie-In	2	EA	10,000.00	$ 20,000	60%	$ 12,000
6	1.0%	Gate Valve	10	EA	6,000.00	$ 60,000	60%	$ 36,000
7	0.5%	Hydrant	4	EA	7,000.00	$ 28,000	60%	$ 16,800
8	1.9%	Seeding	72666.67	SY	1.50	$ 109,000	60%	$ 65,400
9	53.3%	Water Main 12 in	21800	LF	140.00	$ 3,052,000	60%	$ 1,831,200
10	0.0%		0		-	$ -	60%	$ -
11	6.8%	Water Main 36 in	1300	LF	300.00	$ 390,000	60%	$ 234,000
12	1.7%	Process Pipes, Valves, Fittings	1	LS	100,000.00	$ 100,000	60%	$ 60,000
13	7.0%	36 in Drain 27 Crossing	400	LF	1,000.00	$ 400,000	60%	$ 240,000
14	0.7%	Detailed Tie-In	2	EA	20,000.00	$ 40,000	60%	$ 24,000
15	0.0%		0		-	$ -	60%	$ -
16	0.0%		0		-	$ -	60%	$ -
17	0.0%		0		-	$ -	60%	$ -
18	0.0%		0		-	$ -	60%	$ -
19	0.0%		0		-	$ -	60%	$ -
20	0.0%		0		-	$ -	60%	$ -
21	0.0%		0		-	$ -	60%	$ -
22	0.0%		0		-	$ -	60%	$ -
23	0.0%		0		-	$ -	60%	$ -
24	0.0%		0		-	$ -	60%	$ -
25	0.0%		0		-	$ -	60%	$ -
26	0.0%		0		-	$ -	60%	$ -
		Construction Sub-Total				$ 5,209,000	60%	$ 3,125,400
	10.0%	**Contingency**				$ 520,900	60%	$ 312,540
	87.9%	**Construction Total**				$ 5,729,900	60%	$ 3,437,940
		Preconstruction Costs						
27	5.0%	Final Design	1	NA	286,666.67	$ 286,667	60%	$ 172,000
28	0.0%		0		-	$ -	60%	$ -
29	0.0%		0		-	$ -	60%	$ -
30	0.0%		0		-	$ -	60%	$ -
31	0.0%		0		-	$ -	60%	$ -
	4.4%	**Preconstruction Total**				$ 286,667	60%	$ 172,000
		Construction Engineering Costs						
32	6.0%	Construction Contract Management	1	NA	343,794.00	$ 343,794	60%	$ 206,276
33	0.0%		0		-	$ -	60%	$ -
34	0.0%		0		-	$ -	60%	$ -
35	0.0%		0		-	$ -	60%	$ -
36	0.0%		0		-	$ -	60%	$ -
	5.3%	**Construction Engineering Total**				$ 343,794	60%	$ 206,276
		Other Eligible Costs						
37	0.0%		0	LS	-	$ -	60%	$ -
38	0.0%		0		-	$ -	60%	$ -
39	0.0%		0		-	$ -	60%	$ -
40	0.0%		0		-	$ -	60%	$ -
41	0.0%		0		-	$ -	60%	$ -
	0.0%	**Other Eligible Total**				$ -	60%	$ -
		In-eligible Costs						
42	2.4%	Easement	10.60606	ACRE	15,000.00	$ 159,091	0%	$ -
43	0.0%		0		-	$ -	0%	$ -
44	0.0%		0		-	$ -	0%	$ -
45	0.0%		0		-	$ -	0%	$ -
	2.4%	**Other Ineligible Total**				$ 159,091	0%	$ -
	100.0%	**Total**				$ 6,519,452		
		Eligible Total				$ 6,360,361	60%	$ 3,816,216
		Federal or State Funds That Supplant Costs				$ -		
		Eligible Cost Total				$ 6,360,361	60%	$ 3,816,216

* The Cost-share estimate is purely for planning and informational purposes only and does not, in any way, guarantee a financial commitment to any degree, from the State Water Commission.

Life Cycle Cost Analysis Review

Sponsor: City of Fargo
Project Title: Fargo Regional Water System Distribution Extensions **Date:** January 17, 2022

Explanation of Alternatives:

Water System Distribution Extensions - Install new watermains to support growth.

No Build - Not building the north or southwest main extensions.

Inputs:

	Water System Distribution Extensions	No Build		
Users Served	47,466			
Construction Cost	$6,519,280	$0		
Annual O & M	$0	$0		

Details:

Water System Distribution Extensions - Install new watermains to support growth in the City's north industrial area, as well as mains to supply Cass Rural Water District for users outside the City limits.

No Build - Not building the north main would require developers to invest in infrastructure improvements and reduce incentivization strategies to entice businesses to locate in the City's north industrial area. This will not result in any additional costs for the City but will hinder the City's efforts to subsidize growth and new development strategies.

Model Function:

The economic model appears to have functioned properly. The results are deemed to be reliable and repeatable with the inputs provided by the project sponsor.

LCCA Model Results:

Scenario Analysis - Present Value Life Cycle Cost Summary

Present Value	Water System	No Build		
Capital Costs	$6,519,000	$0		
O&M	$0	$0		
Repair, Rehab, Replacement	$286,000	$0		
Salvage Value	$39,000	$0		
Total PVC	**$6,766,000**	**$0**		
PV Cost Per User	**$143**	**$0**		

Current Water Rate (Cost Per 5000g)		**$31**			
Comparable Water Rate		**$47**			
Total Municipal Service Users		47,466	47,466		
Cost-Share Percent		60%	60%		
	Local Share	$2,607,600	$0		
	Other Funding	$0	$0		
	Total Local	$2,607,600	$0		
Payment Per User With Cost-Share		**$0.28**	**$0.00**		
	Local Share	$6,519,000	$0		
	Other Funding	$0	$0		
	Total Local	$6,519,000	$0		
Payment Per User Without Cost-Share		**$0.69**	**$0.00**		

Explanation of Results:

The preferred project is extending water main service into an undeveloped area. The present value cost of this alternative is $6,766,000. The present value cost per user for this project is $143 when spread across all of Fargo. The monthly user cost of the local share with SWC cost-share participation is $0.28 per month compared to $0.69 without SWC cost-share participation.

	Year		Annual Population Growth Rate	Average Annual Population Increase/Decrease
ND Dept. of Commerce	2010	2020		
Population & Trends	105,549	125,209	1.9%	1966

Other Comments:

The users served number provided by the sponsor includes all City users and not the projected number of direct beneficiaries served by the new water main extensions.

LCCA Version Version 1.2021-7.26

CAPITAL IMPROVEMENT PLAN (CIP)
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
PLANNING AND EDUCATION DIVISION
SFN 61938 (7/2021)

System: City of Fargo - Fargo Regional Water System Distribution Extensions
Date: 01/06/22

Population: 168,878
Users: 47,466

ASSET	UNITS	UNIT COST	QTY	RESERVE REPLACEMENT %	REPLACEMENT COST	AVERAGE LIFE (YRS)	ANNUAL RESERVE	MONTHLY RESERVE	MONTHLY RESERVE PER CUSTOMER
Existing Project CIP Costs									
Asset - Water Main	Feet	$10.00	528,000	75.00%	$3,960,000	50	$79,200	$6,600	$0.14
Water Treatment Plant			1	50.00%	$0	50	$0	$0	$0.00
Distribution System			1	50.00%	$0	50	$0	$0	$0.00
SUBTOTAL Existing CIP Costs					$3,960,000		$79,200	$6,600	$0.14
New Project CIP Costs									
Watermain 12-inch	Feet	$140.00	21,800	75.00%	$2,289,000	50	$45,780	$3,815	$0.08
Watermain 36-inch	Feet	$300.00	1300	75.00%	$292,500	50	$5,850	$488	$0.01
Process Pipes, Valves, Fittings	Lump Sum	$100,000.00	1	75.00%	$75,000	20	$3,750	$313	$0.01
Non-Cased Boring	Feet	$400.00	500	75.00%	$150,000	50	$3,000	$250	$0.01
Steel Cased Bore	Feet	$750.00	800	75.00%	$450,000	50	$9,000	$750	$0.02
Air Release Valve	Each	$20,000.00	3	75.00%	$45,000	35	$1,286	$107	$0.00
Hydrant	Each	$7,000.00	4	75.00%	$21,000	40	$525	$44	$0.00
Gate Valve	Each	$6,000.00	10	75.00%	$45,000	35	$1,286	$107	$0.00
				75.00%	$0				
				75.00%	$0				
				75.00%	$0				
SUBTOTAL New CIP Costs					$3,367,500		$70,476	$5,873	$0.12
TOTAL Existing and New Project CIP					$7,327,500		$149,676	$12,473	$0.26

	TOTAL RESERVES	ANNUAL RESERVE	MONTHLY RESERVE	MONTHLY RESERVE PER CUSTOMER
Current:	$500,000	$24,000	$2,000.00	$0.04
Adjustment:	$6,827,500	$125,676	$10,473	$0.22

	Monthly Ave Gal/user	Monthly $/kgal
Required	5,000	$0.05
Current	5,000	$0.01
Adjustment	5,000	$0.04

Report Prepared by (Title): _____
Date: _____

Notes:

Instructions
1 - Fill in colored items
2 - Enter Existing asset project CIP costs
3 - Enter New asset project CIP costs
4 - Enter current total reserves and annual reserve

Calculated cell

Cass County P **2.27**

User Info	**Population (2(**	**Accounts (2020 CAFR)**
Fargo+WF	163,403	45,054
CRWD (between Diversion and City Limits)	2,347	1,034
Horace	3,128	1,378
Totals	**168,878**	**47,466**

Water Development Plan: Yes - 2021
Plan Priority: Low

DWR Date Received : 1/3/22

H3

20277 - NW Minot Residential Watermain Replacement

Application Details

Funding Opportunity:	19214-2022 Infrastructure Request
Funding Opportunity Due Date:	Dec 31, 2022 3:00 PM
Program Area:	Funding for Infrastructure in ND - FIND
Status:	Under Review
Stage:	Final Application
Initial Submit Date:	Jan 3, 2022 10:49 AM
Initially Submitted By:	Veronica Meyer
Last Submit Date:	
Last Submitted By:	

Contact Information

Primary Contact Information

Active User*:	Yes
Type:	External User
Name:	Salutation Veronica Middle Name Meyer First Name Last Name
Title:	
Email*:	veronica.meyer@minotnd.org
Address*:	1025 31st St. SE PO Box 5006 Minot North Dakota 58701 City State/Province Postal Code/Zip
Phone*:	(701) 857-4140 Ext. Phone ###-###-####
Fax:	###-###-####
Comments:	

Organization Information

Status*:	Approved
Name*:	City of Minot
Organization Type*:	Municipal Government
Tax Id:	
Organization Website:	
Address*:	1025 31st St. SE

PO Box 5006

Minot North Dakota 58701-____
City State/Province Postal Code/Zip

Phone*: (701) 857-4140 Ext.
###-###-####

Fax: ###-###-####

Benefactor:

Vendor ID:

PeopleSoft Supplier ID:

Comments:

Location Code:

SAM.gov Entity ID:

SAM.gov Name:

SAM.gov Entity ID Expiration Date:

State Issued ID:

Category #:

Year Begin:

Year Closed:

NCES#:

Restricted Indirect Cost Rate: 0.0%

Unrestricted Indirect Cost Rate: 0.0%

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study Name*: NW Minot Residential Watermain Replacement

Sponsor(s)*: City of Minot

County*: Ward

City*: Minot

Description of Request*: New

If Study, What Type:

If Project/Program, What Type: Municipal Water Supply

Jurisdictions/Stakeholders Involved*:

City of Minot

Specific Needs Addressed By the Project, Program or Study*:

NW Minot area watermain replacement.

Description of Problem or Need and How Project Addresses that Problem or Need.

Description of Problem*:

The watermain in the NW area of Minot is primarily cast iron pipe. This area is subject to frequent watermain breaks, water quality issues as well as fire flow issues. The proposed project will replace approximately 40,000 LF of existing cast iron pipe with larger 8-inch PVC pipe and 12-inch

transmission mains thus reducing breaks, reducing water quality issues and providing adequate fire flow protection.

For this project,

Choose City, County or Water District*: City

What is the Current Estimated Population?*: 49000

For this project,

What is the Benefited Population?*: 2200

Has Feasibility Study Been Completed?*: N/A

Has Engineering Design Been Completed?*: No

Have Assessment Districts Been Formed?*: N/A

Have Land or Easements Been Acquired?*: N/A

Has Sediment Analysis For Reconstruction Of An Existing Drain Been Completed?*: N/A

Extraterritorial Jurisdiction?*: N/A

Have You Applied For Any Federal Permits?*: N/A

If Yes or Ongoing, Please Explain (include type/number):

Have You Applied for any State Permits?*: No

If Yes or Ongoing, Please Explain (include type/number):

Have You Applied for any Local Permits?*: N/A

If Yes or Ongoing, Please Explain (include type/number):

Briefly explain the level of review the Project/Program/Study has undergone.

Level Review*:

The project has not undergone any review at this point as design hasn't begun.

Do You Expect Any Obstacles To Implementation (i.e. problems with land acquisition, permits, funding, local opposition, environmental concerns, etc.)?

Obstacles*: No

Have you received, or do you anticipate receiving federal funding?

Federal Funding*: No

Implementation Timelines

Study*: 02/2022
Month/Year (00/0000)

Design*: 02/2022
Month/Year (00/0000)

Bid*: 03/2022
Month/Year (00/0000)

Construction Start*: 05/2022
Month/Year (00/0000)

Construction Completion*: 12/2022
Month/Year (00/0000)

Explain Additional Timeline Issues*:

No additional timeline issues are anticipated.

Certification

Submitted by*:	Dan Jonasson 01/03/2022 First Name Last Name Date
Address*:	1025 31st St. SE Address Line 1 PO Box 5006 Address Line 2 Minot North Dakota 58701-5006 City State Zip Code
Telephone Number*:	701-857-4140
Sponsor Email*:	dan.jonasson@minotnd.org
Consulting Engineer*:	TBD
Engineer Telephone Number*:	000-000-0000
Engineer Email*:	dan.jonasson@minotnd.org

This section needs to be completed by the project sponsor.
I certify that, to the best of my knowledge, the provided information is true and accurate.

Certify*:	Yes
Authorized Individual*:	Dan Jonasson 01/03/2022 First Name Last Name Date

Documentation

Documentation

Project Specific Map
(Including an inset map of location within state.)
CLICK HERE to see examples.

Project Specific Map*:	LOCATION MAP.pdf
Are You Seeking Department of Water Resources Cost-Share?*:	Yes

CLICK HERE for SFN 61801 Delineation of Costs.

Delineation of Costs SFN 61801:	sfn_61801_delineation_of_cost 2.xlsx
Type of Request:	Preconstruction
Water Supply Projects?:	Yes

CLICK HERE for Life Cycle Cost Analysis Instructions.

Life Cycle Cost Analysis:	life_cycle_cost_analysis_worksheet.xlsx

CLICK HERE for SFN 61938 Capital Improvement Plan.

Capital Improvement Plan SFN 61938:	sfn_61938_capital_improvement_plan 1.xlsx
Rural Flood Control?:	No
Drain Reconstructions?:	No
Flood Recovery Property Acquisition?:	No
Community Flood Control, Rural Flood Control, Bank Stabilization, or Snag & Clear Project With Total Cost of $200,000 or More?:	No
Feasibility/Engineering Study for the Proposed Project:	No

Engineering Total Cost of $35,000 or More?: Yes

Engineering Selection Documentation:

Sources

Funding Amount Requested

State FY1	State FY2	Beyond State FY2	Total Cost Source	Type	Term	Interest Rate
$2,250,000.00	$0.00	$0.00	$2,250,000.00		0.00	0.00
$2,250,000.00	**$0.00**	**$0.00**	**$2,250,000.00**			

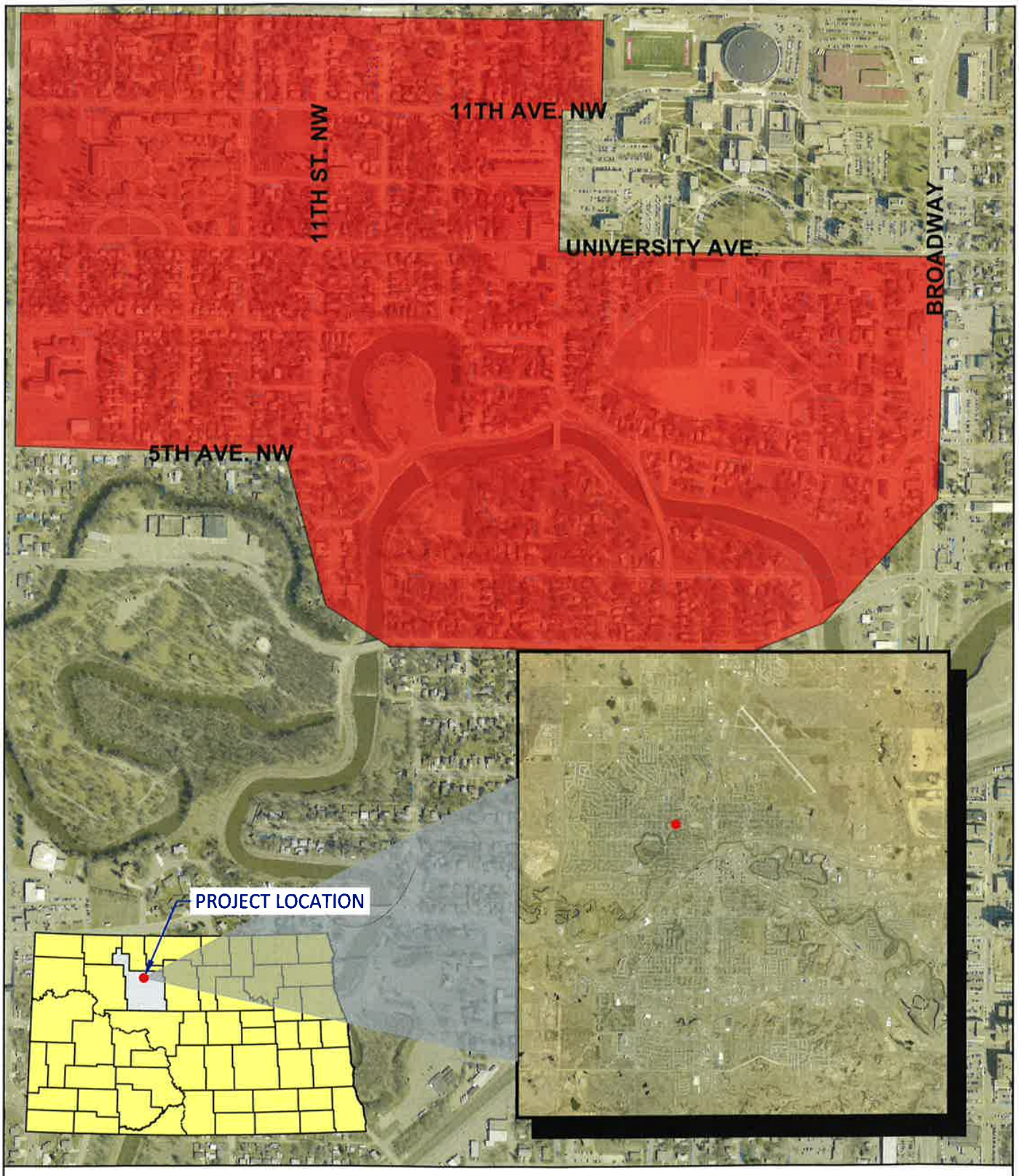
Other Funding Sources

Type	Source	Grant or Loan	State FY1	State FY2	Beyond State FY2	Total Other Sources
Local	Water Infrastructure Funds	N/A	$1,500,000.00	$0.00	$0.00	$1,500,000.00
			$1,500,000.00	**$0.00**	**$0.00**	**$1,500,000.00**

Project Total

Current Requested Amount:	$2,250,000.00
Other Funding Sources:	$1,500,000.00
Total Project:	$3,750,000.00

DWR Date Received : 1/3/22



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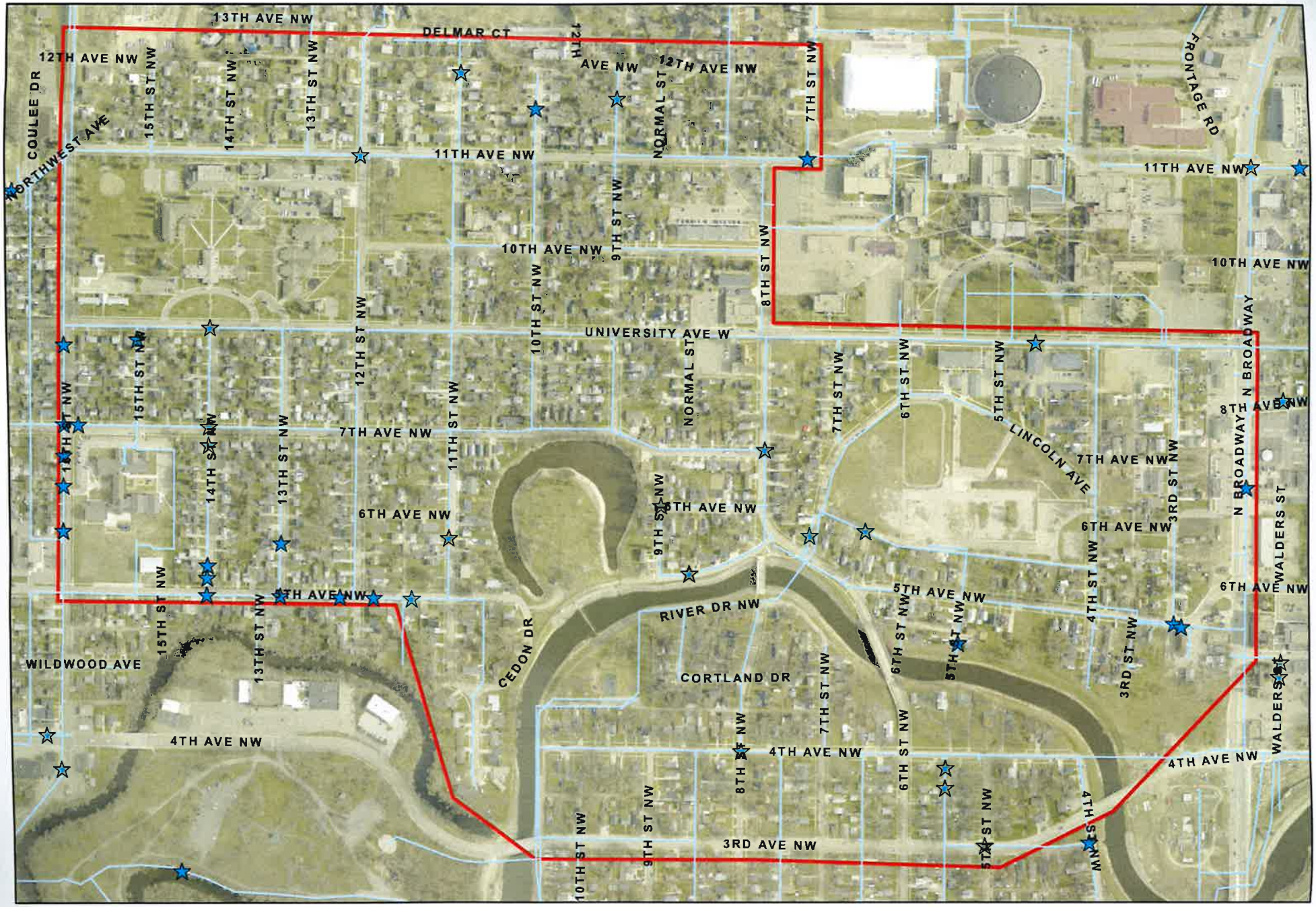
COST-SHARE APPLICATION

NW MINOT RESIDENTIAL WATERMAIN REPLACEMENT

DATE DRAWN: 09/30/2021

City of Minot
Engineering Department

NW Minot Water Breaks



DELINEATION OF COSTS
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
PLANNING AND EDUCATION
SFN 61801 (10/2021)

DWR Date Received : January 03, 2022

Project:	NW Area Watermain Replacement
Sponsor:	City of Minot
Contact:	Dan Jonasson, Director of Public Works
Phone:	701-857-4140
Engineer:	
Phone:	

Total Cost :	$ 3,750,000
Ineligible Cost :	$ -
Eligible Cost :	$ 3,750,000
Local Cost :	$ 1,500,000

Date: October 1, 2021

	Cost-Share $
	$ 2,250,000
Preconstruction :	$ 225,000
Construction :	$ 2,025,000

Project Type:	**Cost-share %**
Municipal Water Expansion/Improvement	60%

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share $ *
		Construction Costs						
1	0.9%	Mobilization	1	LS	30,000.00	$ 30,000	60%	$ 18,000
2	54.3%	Water Main 8 in	33625	LF	51.50	$ 1,731,688	60%	$ 1,039,013
3	13.8%	Hydrant	80	EA	5,500.00	$ 440,000	60%	$ 264,000
4	21.9%	Gate Valve	200	EA	3,500.00	$ 700,000	60%	$ 420,000
5	0.0%		0		-	$ -	60%	$ -
6	0.0%		0		-	$ -	60%	$ -
7	0.0%		0		-	$ -	60%	$ -
8	0.0%		0		-	$ -	60%	$ -
9	0.0%		0		-	$ -	60%	$ -
10	0.0%		0		-	$ -	60%	$ -
11	0.0%		0		-	$ -	60%	$ -
12	0.0%		0		-	$ -	60%	$ -
13	0.0%		0		-	$ -	60%	$ -
14	0.0%		0		-	$ -	60%	$ -
15	0.0%		0		-	$ -	60%	$ -
16	0.0%		0		-	$ -	60%	$ -
17	0.0%		0		-	$ -	60%	$ -
18	0.0%		0		-	$ -	60%	$ -
19	0.0%		0		-	$ -	60%	$ -
20	0.0%		0		-	$ -	60%	$ -
21	0.0%		0		-	$ -	60%	$ -
22	0.0%		0		-	$ -	60%	$ -
23	0.0%		0		-	$ -	60%	$ -
24	0.0%		0		-	$ -	60%	$ -
25	0.0%		0		-	$ -	60%	$ -
26	0.0%		0		-	$ -	60%	$ -
		Construction Sub-Total				$ 2,901,688	60%	$ 1,741,013
	10.0%	**Contingency**				$ 290,169	60%	$ 174,101
	85.1%	**Construction Total**				$ 3,191,856	60%	$ 1,915,114
		Preconstruction Costs						
27	11.7%	Final Design	1	LS	375,000.00	$ 375,000	60%	$ 225,000
28	0.0%		0		-	$ -	60%	$ -
29	0.0%		0		-	$ -	60%	$ -
30	0.0%		0		-	$ -	60%	$ -
31	0.0%		0		-	$ -	60%	$ -
	10.0%	**Preconstruction Total**				$ 375,000	60%	$ 225,000
		Construction Engineering Costs						
32	5.7%	Construction Contract Management	1	LS	183,144.00	$ 183,144	60%	$ 109,886
33	0.0%		0		-	$ -	60%	$ -
34	0.0%		0		-	$ -	60%	$ -
35	0.0%		0		-	$ -	60%	$ -
36	0.0%		0		-	$ -	60%	$ -
	4.9%	**Construction Engineering Total**				$ 183,144	60%	$ 109,886
		Other Eligible Costs						
37	0.0%		0			$ -	60%	$ -
38	0.0%		0		-	$ -	60%	$ -
39	0.0%		0		-	$ -	60%	$ -
40	0.0%		0		-	$ -	60%	$ -
41	0.0%		0		-	$ -	60%	$ -
	0.0%	**Other Eligible Total**				$ -	60%	$ -
		In-eligible Costs						
42	0.0%		0	NA		$ -	0%	$ -
43	0.0%		0		-	$ -	0%	$ -
44	0.0%		0		-	$ -	0%	$ -
45	0.0%		0		-	$ -	0%	$ -
	0.0%	**Other Ineligible Total**				$ -	0%	$ -
	100.0%	**Total**				$ 3,750,000		
		Eligible Total				$ 3,750,000	60%	$ 2,250,000
		Federal or State Funds That Supplant Costs				$ -		
		Eligible Cost Total				$ 3,750,000	60%	$ 2,250,000

* The Cost-share estimate is purely for planning and informational purposes only and does not, in any way, guarantee a financial commitment to any degree, from the State Water Commission.

Life Cycle Cost Analysis Review

Sponsor: City of Minot
Project Title: NW Minot Residential Watermain Replacement **Date:** January 17, 2022

Explanation of Alternatives:

Watermain Replacement (Preferred) – Replace existing cast iron pipe with C900 PVC pipe.

Do Nothing - Leave the system as is and continue doing spot repairs as needed.

Inputs:

	Watermain Replacement	Do Nothing		
Users Served	900			
Construction Cost	$3,754,400	$0		
Annual O & M	$1,200	$23,000		

Details:

Watermain Replacement (Preferred) – Replace existing cast iron pipe with ~ 35,000 feet of C900 PVC pipe and upsizing select mains to reduce breaks and improve water quality. Replace gate valves and hydrants.

Do Nothing - Leave the system as is and continue doing spot repairs as needed.

Model Function:

The economic model appears to have functioned properly. The results are deemed to be reliable and repeatable with the inputs provided by the project sponsor.

LCCA Model Results:

Scenario Analysis - Present Value Life Cycle Cost Summary

Present Value	Watermain Replacement	Do Nothing		
Capital Costs	$3,754,000	$0		
O&M	$35,000	$667,000		
Repair, Rehab, Replacement	$1,189,000	$0		
Salvage Value	$320,000	$0		
Total PVC	**$4,658,000**	**$667,000**		
PV Cost Per User	**$5,176**	**$741**		

Current Water Rate (Cost Per 5000g)		**$38**			
Comparable Water Rate		**$47**			
Total Municipal Service Users		900	900		
Cost-Share Percent		60%	60%		
	Local Share	$1,501,600	$0		
	Other Funding	$0	$0		
	Total Local	$1,501,600	$0		
Payment Per User With Cost-Share		**$8.44**	**$0.00**		
	Local Share	$3,754,000	$0		
	Other Funding	$0	$0		
	Total Local	$3,754,000	$0		
Payment Per User Without Cost-Share		**$21.10**	**$0.00**		

Explanation of Results:

The net present value of the preferred alternative of Watermain Replacement is $4,658,000 which is $3,993,000 more than the Do Nothing alternative. The present value cost per user of the preferred alternative is $5,176 which equates to $8.44 per user per month with SWC cost-share participation and $21.10 without SWC participation.

	Year		Annual Population Growth Rate	Average Annual Population Increase/Decrease
ND Dept. of Commerce	2010	2020		
Population & Trends	40,888	47,428	1.6%	654

Other Comments:

LCCA Version Version 1.2021-7.26

CAPITAL IMPROVEMENT PLAN (CIP)
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
PLANNING AND EDUCATION DIVISION
SFN 61938 (7/2021)

System: City of Minot - NW Area Watermain Replacement
Date: 12/10/21

Population: 49,000
Users: 19,600

ASSET	UNITS	UNIT COST	QTY	RESERVE REPLACEMENT %	REPLACEMENT COST	AVERAGE LIFE (YRS)	ANNUAL RESERVE	MONTHLY RESERVE	MONTHLY RESERVE PER CUSTOMER
Existing Project CIP Costs									
Asset - Water System	LS	$80,668,703.43	1	75.00%	$60,501,528	50	$1,210,031	$100,836	$5.14
SUBTOTAL Existing CIP Costs					$60,501,528		$1,210,031	$100,836	$5.14
New Project CIP Costs									
NW Area Watermain Replacemer	LS	$3,754,400.00	1	75.00%	$2,815,800	50	$56,316	$4,693	$0.24
SUBTOTAL New CIP Costs					$2,815,800		$56,316	$4,693	$0.24
TOTAL Existing and New Project CIP					$63,317,328		$1,266,347	$105,529	$5.38

	TOTAL RESERVES	ANNUAL RESERVE	MONTHLY RESERVE	MONTHLY RESERVE PER CUSTOMER
Current:	$18,708,852	$6,792,695	$566,057.92	$28.88
Adjustment:	$44,608,476	$0	$0	$0.00

	Monthly Ave Gal/user	Monthly $/kgal
Required	5,000	$1.08
Current	5,000	$5.78
Adjustment	5,000	$0.00

Report Prepared by (Title): _____

Date: _____

Notes:

Instructions
1 - Fill in colored items
2 - Enter Existing asset project CIP costs
3 - Enter New asset project CIP costs
4 - Enter current total reserves and annual reserve

H4

NORTH Dakota | Water Commission

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WATER COMMISSION COST-SHARE APPLICATION CHECKLIST

(This checklist must be attached to all applications for Water Commission cost-share assistance.)

Project sponsors requesting cost-share assistance from the North Dakota Water Commission are required to submit completed applications, including all supplemental materials, at least 45 days in advance of meetings. Incomplete applications or those submitted after the 45 day deadline will not appear on the next meeting agenda. Project sponsors, or their authorized representative, must verify that the following information is included as part of their application package for cost-share assistance.

Project Name:	Sponsoring Entity:
2021 Asbestos Pipe Replacement Project	City of Rugby

Initial If Included, or "X" If Not	SWC Cost-Share Application Materials ***Required For All Applications**
SS	*Cost-Share Application Form (SFN 60439)
SS	*Project Specific Map (Including an inset map of location within state.) See Examples
SS	*Detailed Project Costs SFN 61801 (complete fillable worksheet)
NA	Approved Drainage Permit (Rural Flood Control Only)
NA	Results Of Positive Assessment Vote (Rural Flood Control Only)[1]
NA	Acquisition Plan (Flood Recovery Property Acquisition Program Only)
NA	Proof of HMGP Funding Ineligibility (Flood Recovery Property Acquisition Program Only)
NA	Plans & Specifications For Bidding Project Construction (Construction Requests Only)
NA	Economic Analysis Worksheet (Flood Control & Water Conveyance Construction Only)
NA	Life Cycle Cost Analysis Worksheet (Water Supply Construction Only)
NA	Capital Improvement Plan SFN 61938 (Water Supply Construction Only)

[1] *A pre-application process is allowed for assessment projects. (See Project Funding Policy, Procedure, and General Requirements)*

I hereby certify that the information contained in this application for cost-share assistance is true and accurate, and all required materials have been provided with this application. I have read and understand the Water Commission's requirements for a completed application, and further understand that the submission of an incomplete application package will not be considered by the Water Commission for cost-share assistance.

Sue Steinke		
Project Sponsor (Printed Name)	Project Sponsor (Signature)	Date

PLEASE NOTE

The cost-share application (SFN 60439); Life Cycle Cost Analysis Worksheet; Economic Analysis Worksheet; Project Funding Policy, Procedure, and General Requirements; and future meeting dates are available via the Water Commission website at swc.nd.gov. If you have questions, please call 701-328-4989 or email swccostshare@nd.gov.

COST-SHARE REQUEST
NORTH DAKOTA WATER COMMISSION
PLANNING DIVISION
SFN 60439 (5/2021)

This form is to be filled out by the project or program sponsor with Water Commission staff assistance as needed. Applications for cost-share are accepted at any time. However, applications received less than 45 days before a Water Commission meeting will be held for consideration at the next scheduled meeting.

Please answer the following questions as completely as possible. Supporting documents such as maps, detailed cost estimates, and engineering reports should be attached to this form. If additional space is required, please use extra sheets as necessary.

For information regarding cost-share program eligibility see the *Water Commission Cost-Share Policy, Procedure, and General Requirements* – available upon request or at www.swc.nd.gov.

Project, Program, Or Study Name
2021 Asbestos Pipe Replacement Project

Sponsor(s)
City of Rugby

County	City	Township/Range/Section
Pierce	Rugby	

Description Of Request ☒ New ☐ Updated (previously submitted) ☒ Pre-Construction ☐ Construction

If Study, What Type ☐ Water Supply ☐ Hydrologic ☐ Floodplain Mgmt. ☐ Feasibility ☐ Other

If Project/Program

☐ Bank Stabilization	☐ Irrigation	☐ Recreation	☐ Snagging & Clearing
☐ Dam Safety/EAP	☐ Multi-Purpose	☐ Ring Dike Program	☐ Water Retention
☐ FEMA Levee Program	☒ Municipal Water Supply	☐ Rural Flood Control	
☐ Flood Protection Program	☐ Property Acquisition Program	☐ Rural Water Supply	

Jurisdictions/Stakeholders Involved In This Project
Municipal Jurisdiction of Rugby

10"

Description Of Problem Or Need And How The Project Provides A Solution
The proposed project will replace approximately ~~6~~ 9 miles of asbestos cement waterline and air valves from the city raw water wells to the water treatment plant.
The City had a significant break along this watermain, which cost $170,000 to fix. This unanticipated expense significantly depleted the City's reserves. During the repairs, the City was forced to rely on a smaller bypass watermain, reducing the City's capacity and ability to meet system demands. This project will improve water supply reliability for the 2,911 residents of Rugby as well as the 4,200 rural water users receiving water supply from Rugby's treatment plant. By supporting this project, you are supporting rural agricultural communities and ensuring they have access to reliable, high-quality water while keeping rates affordable for their fixed-income residents.

Level Of Study Completed
The City and Engineer have discussed the condition of the existing line, determined the necessity of the project and have developed a preliminary opinion of cost for the city's initial planning efforts.

- Joints are separating.
- Air valves are leaking.
- Multiple main breaks.

Alternatives: Option 1 - PVC
Option 2 - Poly

- Ground water existing (Pleasant Lake Aquifer)

Describe Potential Obstacles To Implementation

Land Acquisition
None, no land acquisition required.

Permits

Funding
None, this project is listed on the 2021 DWSRF IUP and can access loan financing for all local cost-share.

Local Opposition
We believe the presence of asbestos cement will deter any local opposition.

Environmental Concerns
None

Other
None.

Funding Timeline (carefully consider when SWC cost-share will be needed)

Source	Total Cost	2021-2023 7/1/21-6/30/23	2023-2025 7/1/23-6/30/25	Beyond 7/1/25
Federal	$0.00	$	$	$
Water Commission	$4,983,700.26	$4,983,700.26	$	$
Other State	$3,322,466.84	$3,322,466.84	$	$
Local	$0.00	$	$	$
Total	$8306167.1	$8,306,167.10	$ 0.00	$ 0.00

Funding Detail (provide names and amounts from all potential funding sources from the table above.)

Source	Amount	Grant Or Loan	Term	Interest
SWC (Preconstruction)	$ 433,365.24	Grant	0	0 %
SWC (Construction)	$ 4,550,335.02	Grant	0	0 %
DWSRF	$ 3,322,466.84	Loan	30	2 %
	$			%

Explain Timelines For All Phases And Their Current Status
The City plans to begin developing the PER and DWSRF application after the August SWC meeting. The final design will be completed in the fall of 2021 and we will bid the project in Spring of 2022. Construction will be completed in summer of 2022.

Study (Month/Year)	Design (Month/Year)	Bid (Month/Year)
06-07/21	08/21	02/22

Construction Start (Month/Year)	Construction Completion (Month/Year)
05/22	10/22

Has Economic Analysis Been Completed?	☐ Yes	☐ No	☐ Ongoing	☒ Not Applicable
Has Life Cycle Cost Analysis Been Completed?	☐ Yes	☐ No	☐ Ongoing	☒ Not Applicable
Has Feasibility Study Been Completed?	☐ Yes	☒ No	☐ Ongoing	☐ Not Applicable
Has Engineering Design Been Completed?	☐ Yes	☒ No	☐ Ongoing	☐ Not Applicable
Have Land Or Easements Been Acquired?	☐ Yes	☐ No	☐ Ongoing	☒ Not Applicable

Have Assessment Districts Been Formed?	☐ Yes	☐ No	☐ Ongoing	☒ Not Applicable	If Yes, (Date)?

Are Connections For New Rural Customers Located Within The Extra-Territorial Jurisdiction Of A Municipality? ☐ Yes ☒ No

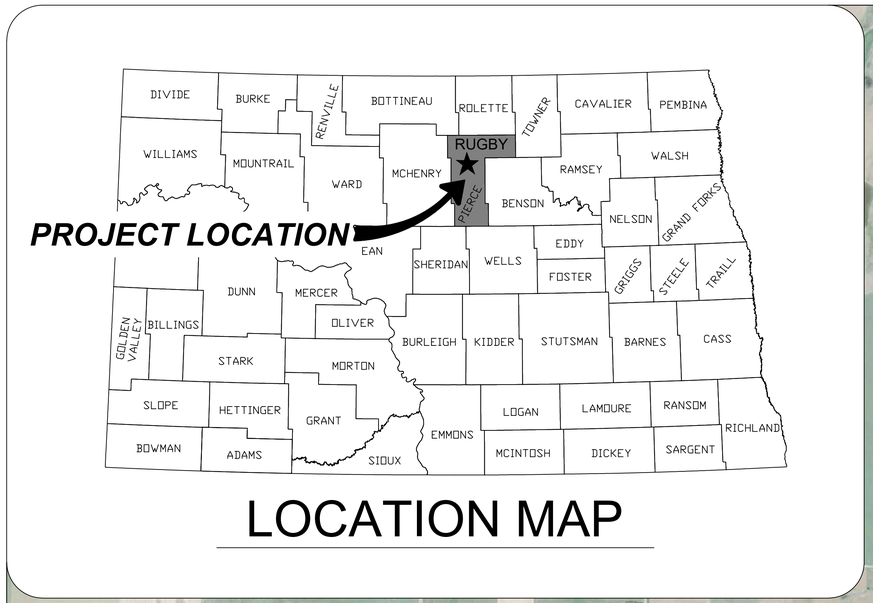
Have You Applied For Any Federal Permits?	☐ Yes	☒ No	☐ Not Applicable
Have You Been Approved For Any Federal Permits?	☐ Yes	☐ No	☒ Not Applicable
Type		Number	
If Yes, Please Explain			
Have You Applied For Any State Permits?	☐ Yes	☒ No	☐ Not Applicable
Have You Been Approved For Any State Permits?	☐ Yes	☐ No	☒ Not Applicable
Type		Number	
If Yes, Please Explain			
Have You Applied For Any Local Permits?	☐ Yes	☒ No	☐ Not Applicable
Have You Been Approved For Any Local Permits?	☐ Yes	☐ No	☒ Not Applicable
Type		Number	
If Yes, Please Explain			

Submitted By Sue Steinke			Date
Address 223 South Main Street	City Rugby	State ND	ZIP Code 58368
Sponsor's Telephone Number 701-776-5734		Sponsor's Email Address rugbycitysue@outlook.com	
Engineer's Name Jim Olson		Engineer's Telephone Number 303-217-0401	
Engineer's Company AE2S		Engineer's Email Address Jim.Olson@AE2S.com	
I Certify That, To The Best Of My Knowledge, The Provided Information Is True And Accurate.			
Signature			Date

E-MAIL TO:
swccostshare@nd.gov

OR

Submit Via Email



LOCATION MAP

NORTH

SCALE: NONE

PROPOSED WATER TRANSMISSION LINE
RUGBY, NORTH DAKOTA

AE2S

WELL #9
WELL #8
WELL #6
WELL #7
EXISTING 16" WATERMAIN
WELL #4
WELL #3
WELL #5
EXISTING 10" AC WATERMAIN
PROPOSED 16" WATER TRANSMISSION LINE
WELL #1
WELL #2
EXISTING 10" AC WATERMAIN
EXISTING 16" WATERMAIN
WATER PLANT
RUGBY
ARV
GV

File: W:\R\Rugby\Transmission Line Estimate\Rugby well field record drawing for Jim.dwg

DELINEATION OF COSTS
NORTH DAKOTA WATER COMMISSION
PLANNING DIVISION
SFN 61801 (11/2020)

SWC Date Received : June 28, 2021

Project Costs

Date: June 28, 2021

Project:	2021 Asbestos Pipe Replacement Project
Sponsor:	City of Rugby
Contact:	Jennifer Stewart, City Auditor
Phone:	701-776-61-81
Engineer:	Jim Olson, AE2S
Phone:	303-217-0401

Total Cost :	$ 8,306,167	
Ineligible Cost :	$ -	**Cost-Share $**
Eligible Cost :	$ 8,306,167	$ 4,983,700
	Current Request Preconstruction	325,000
	Project Type:	**Cost-share %**
	Municipal Water Expansion/Improvement	60%

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share $ *
		Construction Costs						
1	1.1%	Bonding / Insurance	1	LS	80,000.00	$ 80,000.00	60%	$ 48,000.00
2	5.5%	Mobilization	1	LS	400,000.00	$ 400,000.00	60%	$ 240,000.00
3	0.1%	Erosion Control	1	LS	10,000.00	$ 10,000.00	60%	$ 6,000.00
4	0.1%	Traffic Control	1	LS	5,000.00	$ 5,000.00	60%	$ 3,000.00
5	1.0%	Site Work	1	LS	70,000.00	$ 70,000.00	60%	$ 42,000.00
6	78.8%	Water Main 16 in	51774	LF	110.00	$ 5,695,140.00	60%	$ 3,417,084.00
7	1.7%	Gate Valve	18	EA	7,000.00	$ 126,000.00	60%	$ 75,600.00
8	2.2%	Air Release Valve	16	EA	10,000.00	$ 160,000.00	60%	$ 96,000.00
9	0.3%	Connection to Existing Line	4	EA	5,000.00	$ 20,000.00	60%	$ 12,000.00
10	0.0%		0		-	$ -	60%	$ -
11	0.0%		0		-	$ -	60%	$ -
12	0.0%		0		-	$ -	60%	$ -
13	0.0%		0		-	$ -	60%	$ -
14	0.0%		0		-	$ -	60%	$ -
15	0.0%		0		-	$ -	60%	$ -
16	0.0%		0		-	$ -	60%	$ -
17	0.0%		0		-	$ -	60%	$ -
18	0.0%		0		-	$ -	60%	$ -
19	0.0%		0		-	$ -	60%	$ -
20	0.0%		0		-	$ -	60%	$ -
21	0.0%		0		-	$ -	60%	$ -
22	0.0%		0		-	$ -	60%	$ -
23	0.0%		0		-	$ -	60%	$ -
24	0.0%		0		-	$ -	60%	$ -
25	0.0%		0		-	$ -	60%	$ -
26	0.0%		0		-	$ -	60%	$ -
		Construction Sub-Total				$ 6,566,140.00	60%	$ 3,939,684.00
	10.0%	**Contingency**				$ 656,614.00	60%	$ 393,968.40
	87.0%	**Construction Total**				$ 7,222,754.00	60%	$ 4,333,652.40
		Engineering Costs						
27	7.5%	Final Design	1	NA	541,706.55	$ 541,706.55	60%	$ 325,023.93
28	7.5%	Project Inspection	1	NA	541,706.55	$ 541,706.55	60%	$ 325,023.93
29	0.0%		0		-	$ -	60%	$ -
30	0.0%		0		-	$ -	60%	$ -
31	0.0%		0		-	$ -	60%	$ -
32	0.0%		0		-	$ -	60%	$ -
32	0.0%		0		-	$ -	60%	$ -
33	0.0%		0		-	$ -	60%	$ -
	13.0%	**Engineering Total**				$ 1,083,413.10	60%	$ 650,047.86
		Other Eligible Costs						
34	0.0%		1			$ -	60%	$ -
35	0.0%		1		-	$ -	60%	$ -
36	0.0%		1		-	$ -	60%	$ -
37	0.0%		1		-	$ -	60%	$ -
38	0.0%		1		-	$ -	60%	$ -
39	0.0%		1		-	$ -	60%	$ -
40	0.0%		1		-	$ -	60%	$ -
41	0.0%		1		-	$ -	60%	$ -
	0.0%	**Other Eligible Total**				$ -	60%	$ -
		In-eligible Costs						
42	0.0%		1		-	$ -	0%	$ -
43	0.0%		1		-	$ -	0%	$ -
44	0.0%		1		-	$ -	0%	$ -
45	0.0%		1		-	$ -	0%	$ -
46	0.0%		1		-	$ -	0%	$ -
47	0.0%		1		-	$ -	0%	$ -
48	0.0%		1		-	$ -	0%	$ -
49	0.0%		1		-	$ -	0%	$ -
	0.0%	**Other Ineligible Total**				$ -	0%	$ -
	100.0%	**Total**				$ 8,306,167.10		
		Eligible Total				$ 8,306,167.10	60%	$ 4,983,700.26
		Federal or State Funds That Supplant Costs				$ -		
		Eligible Cost Total				$ 8,306,167.10	60%	$ 4,983,700.26

* The Cost-share estimate is purely for planning and informational purposes only and does not, in any way, guarantee a financial commitment to any degree, from the State Water Commission.

Life Cycle Cost Analysis Review

Sponsor: City of Rugby
Project Title: 16" Water Transmission Line Replacement Project **Date:** January 19, 2022

Explanation of Alternatives:

16" Water Line Replacement (Preferred) - Replace approximately 9 miles of waterline and air valves.

No Build - The City would not replace the waterline.

Regionalization - Rugby provides water supply to the All Seasons Water Users District. For that reason, a separate "regionalization option" was not considered.

Inputs:

	16" Water Line	No Build	Regionalization	
Users Served	5364			
Construction Cost	$8,306,100	$0	$0	
Annual O & M	$0	$175,000	$0	

Details:

16" Water Line Replacement (Preferred) - Replace approximately 9 miles of waterline and air valves from the city raw water wells to the water treatment plant. A little over half of the line to be replaced is 14-inch PVC that was installed in the early 2000s, with the remaining line being asbestos cement line, installed in the 1940s.

No Build - The City would not replace the waterline. The asbestos cement line was installed in the 1940s when certain areas at that time were dry, and are wetlands today. This causes the ground to soften and joints to buckle. This line has a minimum of about 1,000 ft of pipe under wet areas. Due to these conditions, it is anticipated that breaks will continue annually until the line is replaced.

Regionalization - Rugby is already connected to and provides water supply to the All Seasons Water Users District. This water line is essential to

Model Function:

The economic model appears to have functioned properly. The results are deemed to be reliable and repeatable with the inputs provided by the project sponsor.

LCCA Model Results:

Scenario Analysis - Present Value Life Cycle Cost Summary

Present Value	16" Water Line Replacement	No Build	Regionalization	
Capital Costs	$8,306,000	$0		
O&M	$0	$5,089,000		
Repair, Rehab, Replacement	$121,000	$0		
Salvage Value	$34,000	$0		
Total PVC	**$8,393,000**	**$5,089,000**		
PV Cost Per User	**$1,565**	**$949**		

Current Water Rate (Cost Per 5000g)		**$55**			
Comparable Water Rate		**$47**			
Total Municipal Service Users		5,364	5,364		
Cost-Share Percent		60%	60%		
	Local Share	$3,322,400	$0		
	Other Funding	$0	$0		
	Total Local	$3,322,400	$0		
Payment Per User With Cost-Share		**$3.13**	**$0.00**		
	Local Share	$8,306,000	$0		
	Other Funding	$0	$0		
	Total Local	$8,306,000	$0		
Payment Per User Without Cost-Share		**$7.83**	**$0.00**		

Explanation of Results:

The net present value of the preferred alternative of 16" Water Line Replacement is $8,393,000 which is $3,304,000 more than the No Build alternative. However, the No Build alternative does not address the expected continuous down time from line breaks. The present value per user of the preferred alternative is $1,565 which equates to $3.13 per user per month with SWC cost-share participation and $7.83 without SWC participation.

	Year		Annual Population Growth Rate	Average Annual Population Increase/Decrease
ND Dept. of Commerce	2010	2020		
Population & Trends	2,876	2,566	-1.1%	-31

LCCA Version Version 1.2021-7.26

NORTHWEST AREA WATER SUPPLY PROJECT CONTRACT

Contract No: 237-4-1
Water User Entity: City of Rugby

TABLE OF CONTENTS

1. PARTIES

This contract is by and between the North Dakota State Water Commission, a state agency created and existing pursuant to North Dakota Century Code chapter 61-02, hereafter referred to as the "Commission," acting through the North Dakota State Engineer; and the City of Rugby, hereafter referred to as the "User."

2. INTRODUCTION

2.1 North Dakota Century Code (N.D.C.C.) Chapter 61-24.6 authorizes the Commission to develop a project to deliver water throughout northwestern North Dakota for multiple purposes, including domestic, rural water districts, and municipal uses. This water project is known as the Northwest Area Water Supply Project (Project).

2.2 The Commission has developed the prefinal design for the Northwest Area Water Supply project. Forty-one communities and nine rural water associations in northwestern North Dakota have signed agreements of intent with the Commission for the purpose of inclusion in the design of the Project.

2.3 The Commission, pursuant to N.D.C.C. chapter 61-02 and chapter 61-24.6 may enter into contracts to finance the improvement of a water treatment facility and transmission system.

2.4 The User enters into this contract, pursuant to the laws of the State of North Dakota for assistance in developing a water supply as a component of the Project. The User will make payments to the Commission at the rates and pursuant to the terms and conditions set forth in this contract. The User has presented the question of participation in this agreement to its electorate and participation has been approved, or the User has authority to enter into this agreement pursuant to its home rule charter and implementing ordinance.

NOW THEREFORE, in consideration of the mutual covenants contained in this contract, it is mutually agreed by and between the parties to this contract as follows:

3. DEFINITIONS

3.1 **"Capital Costs"** means all costs incurred by the Commission or reasonably expected to be incurred by the Commission in construction of the Project, which are properly chargeable, in accordance with generally accepted accounting practices, to the construction of and the furnishing of equipment for the Project, including the costs of surveys, engineering studies, exploratory work, designs, preparation of construction plans and specifications, acquisitions, acquisition of lands, easements and rights-of-way, relocation work, costs of issuance and financing in connection with any bonds issued to finance the Project, and essential legal, administrative and financial work in connection therewith. Not included in Capital Costs are engineering costs incurred by the Commission before January 1998, in connection with the Project.

3.2 **"Estimated Water Rate For OM& R Costs"** means the estimated rate per each one thousand (1,000) gallons of water for the operation and maintenance of the Rugby Component of the Project and for the accumulation and maintenance of a reserve fund for replacement purposes and extraordinary maintenance. This rate is determined by dividing total costs the Commission estimates it will incur during a year for operation, maintenance, and replacement by the total number of one thousand gallon units of water which the Commission estimates will be sold or used bywater user entities during the same year, plus an amount as determined in Section 7.3.3.

3.3 **"Operation, Maintenance, and Replacement Costs," hereafter referred to as OM&R Costs** means all operation costs incurred by the Commission, including all costs incurred by the Commission for the treatment of water, for the maintenance and administration of the Rugby Component of the Project, and for any amounts that the Commission determines are necessary to establish reserve funds to meet anticipated replacement costs and extraordinary maintenance of the Project as determined in section 7.3.

3.4 **"Project"** means the water supply and distribution system shown on the map marked "Exhibit 1" and attached hereto.

3.5 **"Quarter"** means one of the following periods of three consecutive months (January-March, April-June, July-September, October-December).

3.6 **"Rugby Component of the Project"** means that portion of the Project encompassing an upgrade of the Rugby Water Treatment Plant and expanding its capacity to 1,200 gallons per minute, as well as a pipeline transmission system from the Pleasant Lake Aquifer, which complements the treatment plant capacity.

3.7 **"Water Rate for Capital Costs"** means the rate per each 1,000 gallons of water to be paid by water user entities for Capital Costs of the Project.

3.8 **"Water Rate for OM&R Costs"** means the rate per each one thousand (1,000) gallons of water for OM&R Costs.

3.9 "**Water Usage**" means all water used by the User except for (a) non-potable water, and (b) surface water, well water, or aquifer water, which surface water, well water, or aquifer water is not distributed through the same system as is water purchased or used under this contract.

3.10 **"Water User Entities"** means those persons, municipalities, rural water cooperatives, corporations, and other entities which have entered into and executed water service contracts with the Commission for the purchase or use of water from the Project.

3.11 **"Year"** means the period from January 1 through December 31, both dates inclusive.

4. TERM OF CONTRACT

4.1 **Effective Date.**

This contract shall remain in effect for forty (40) years after the date of signing, unless terminated as provided in Section 5.

4.2 **Renewal.**

Under terms and conditions mutually agreeable to the parties to this contract, renewals of this contract may be made for successive periods not to exceed forty (40) years each.

5. TERMINATION

5.1 **Termination by Change of Circumstances.**

The Commission may terminate this contract effective upon delivery of written notice to the User, or at such later date as may be established by the Commission, under any of the following conditions:

5.1.1 If Commission funding from federal, state, or other sources is not obtained and continued at levels sufficient to meet this contract.

The contract may be modified to accommodate a reduction in funds by mutual consent of the User and the Commission.

5.1.2 If federal or state regulations or guidelines are modified, changed, or interpreted in such a way that the Commission's obligations are no longer allowable nor appropriate under this contract or are no longer eligible for funding proposed by this contract.

5.1.3 If any license or certificate required by law or regulation to be held by the User to participate in this contract is for any reason denied, revoked, or not renewed.

Any such termination of this contract shall be without prejudice to any obligations or liabilities of either party already accrued prior to such termination.

5.2 **Termination by Mutual Consent.**

This contract may be terminated by mutual consent of both parties, in writing.

5.3 **Termination for Default.**

The Commission, by written notice of default (including breach of contract) to the User, may terminate the whole or any part of this contract:

5.3.1 If the User fails to make payment as called for by this contract within the time specified herein or any extension thereof; or

5.3.2 If the User fails to perform any of the other provisions of this contract, or so fails to pursue a provision of this contract as to endanger performance of this contract in accordance with its terms, and after receipt of written notice from the Commission fails to correct such failures within twenty days or such longer period as the Commission may authorize.

The rights and remedies of the Commission provided in the above clause related to defaults (including breach of contract) by the User shall not be exclusive and are in addition to any other rights and remedies provided by law or under this contract.

6. WATER SHORTAGES, MEASUREMENT, DISTRIBUTION AND USE

6.1 Water Shortages.

6.1.1 **No liability for shortages**. In no event shall any liability accrue against the Commission or any of its officers, agents, or employees for any damage or inconvenience, direct or indirect, arising from any water shortages or other interruptions in water deliveries resulting from accident to or failure of Project works and facilities, whether or not attributable to negligence of officers, agents, or employees of the Commission, or from any other cause. The contractual obligations of the User under this contract shall be suspended by reason of and during such shortages or interruptions only if (a) the shortage or interruption is unique to the User (as opposed to other Water User Entities under other Project contracts), and (b) the shortage or interruption is so severe and prolonged as to defeat the User's legitimate contractual expectations in entering into this contract and (c) the shortage or interruption is due to an action of the Commission.

6.1.2 **Proportional sharing of water shortage**. The Commission shall have the right during times of water shortage from any cause to allocate and distribute the available water supply to Water User Entities on a proportionate basis with respect to the proportion that the annual water purchase or use of each Water User Entity for the prior calendar year bears to the total annual water purchase or use of all water service entities on the affected water system for the prior calendar year.

6.2 Measurement of Water.

The User shall furnish, install, operate, and maintain, at its own expense, at the point of measurement, the necessary metering equipment, including a meter house or pit, and required devices of standard type for properly measuring the quantity of water used.

The User shall calibrate the metering equipment at least every five years unless the User is otherwise notified in writing.

6.2.1 **Point of measurement.** Water used by the User will be measured at the existing high service metering vault located on the grounds of the Rugby Water Treatment Plant.

6.2.2 **Access**. The Commission and the User shall have access to the metering equipment belonging to the User at all reasonable times for the purpose of verifying readings of total water usage. Access

includes all reasonable means of access, including any necessary easement.

6.2.3 **Dispute over measurement of water**. If the Commission or the User believes the measurement of water used to be in error the User will cause the meter to be calibrated. The User shall pay for the cost of the calibration. However, if the meter is found to under-register by less than two percent (2%) of the correct volume, the User's payment for the cost of calibration will be reimbursed by the Commission..

6.2.4 **Claim of error after a payment is delinquent**. A claim of error presented after a payment has become delinquent shall not prevent civil action as provided in this contract. The User agrees to continue to make payments for water service after a claim of error has been presented; however, it may do so under protest, and such payments will not prejudice the User's claim of error.

6.2.5 **Correction of meter readings**. If the calibration of any meter establishes that the previous readings of such meter under or over-registered by more than two percent (2%) the correct volume of water used by the User, the meter readings for that meter shall be corrected to the beginning of the year current to the calibration by the percentage of inaccuracy found in such tests. The amount of any underpayment by the User, because the meter under-registered the amount of water used by the User, for the period of time for which the correction is applied, shall be paid to the Commission within sixty (60) days of receipt of a notice from the Commission. The amount of any overpayment by the User, because the meter over-registered the amount of water used by the User, for the period of time for which the correction is applied, shall be refunded to the User or credited upon future payments under this contract.

6.2.6 **Failure of meter**. If any meter fails to register for any period, the amount of water used during such period shall be deemed to be the amount of water used in the corresponding period immediately prior to the failure, unless the Commission and the User shall agree upon a different amount.

6.3 **Responsibility for Distribution and Use of Water.**

The User shall be responsible for the control, distribution, and use of all water used under this contract beyond the point of measurement, and all services, maintenance, and repair of the User's distribution system.

7. WATER RATES AND PAYMENT FOR CAPITAL COSTS

The User agrees to make payments in accordance with the following terms and conditions:

7.1 **Notice of Beginning of Payments.**

The User will make payment in accordance with the terms of this contract for water measured beginning on July 1, 1999.

7.2 **Payments.**

The User's payment each quarter shall equal the sum of the following:

7.2.1 The User's proportionate share of the OM& R Costs; plus,

7.2.2 The User's payment for Capital Costs.

7.3 **Payment for Operation, Maintenance, and Replacement Costs (OM&R Costs).**

The User will make quarterly payments to the Commission for its share of the OM&R Costs for the Project. The payment will be determined by the Commission and based upon actual and forecasted OM&R Costs and may be adjusted annually. The OM&R Costs can also include any amounts needed to replace any reserve funds used to pay Capital Costs of the Project pursuant to 7.3.2. The amount of the quarterly payment will be determined as follows:

7.3.1 **OM&R Costs budget**. Prior to October 1 of each year, the Commission shall establish and adopt a budget for OM&R Costs for the next ensuing year. The Commission will then estimate the total annual water sales or usage for the next ensuing year, and calculate the "Estimated Water Rate for OM&R Costs" At the end of each year, the Commission shall prepare a statement of the actual cost for OM&R for that same year. If the actual OM&R Costs exceed the budget, an appropriate increase in User payments shall be made during the ensuing year. If the actual OM&R Costs are less than the budget, an appropriate reduction will be made in the ensuing year's User payments.

7.3.2 **Reserve fund**. The Commission shall have the authority to include in the OM&R budget for each year an amount per thousand gallons to be accumulated and maintained in a reserve fund for the purpose of replacement and for extraordinary maintenance of Project works. The Commission may, in the event that the base rate for Capital Costs for the year is insufficient to meet the Commission's

debt service obligations for the Project, utilize funds in the reserve fund for that purpose.

7.3.3 **Base water rate for replacement costs.** The base water rate for replacement costs shall be $0.15 per each one thousand (1,000) gallons of water. This rate is based upon the February 1997 cost estimate of the Minot phase of the Project, and the December 1996 cost estimate of the Rugby Component of the Project. The amount is calculated to generate 10% of the Project Capital Costs within 15 years, but accumulation and maintenance of the fund shall extend beyond 15 years.

7.3.4 **Adjustment of the water rate for replacement costs**. The Commission shall have the authority to adjust the water rate for replacement costs annually in accordance with the increase or decrease in total Capital Costs of the Project, or as Capital Costs are incurred by the Commission or reasonably expected to be incurred by the Commission in development of future phases of the Project. The total Capital Costs of the Project shall be those attributable to the present scope of the Project as of the execution of this contract (Exhibit 1), unless the scope is altered by mutual consent pursuant to later paragraphs.

7.3.5 **Quarterly payment**. The User's quarterly payment for OM&R Costs shall be determined by multiplying the amount of water actually used each quarter by the Estimated Water Rate for OM&R Costs.

7.4 **Payment for Capital Costs.**

The User will pay to the Commission a Water Rate for Capital Costs of the Project.

7.4.1 **Base Water Rate for Capital Costs**. The base Water Rate for Capital Costs shall be $0.80 per each one thousand (1,000) gallons of water measured at the point of measurement. This rate is based upon the February 1997 cost estimate of the Minot phase of the Project, and the December 1996 cost estimate of the Ruby Component of the Project, and is also based upon the assumption that the Water User Entities will be reimbursing the Commission collectively for financing 35% of the total cost of the Project.

7.4.2 **Adjustment of the Water Rate for Capital Costs**. The Commission shall have the authority to adjust the base Water Rate for Capital Costs annually in accordance with the increase or decrease in water usage, in total Capital Costs of the Project, or as Capital Costs are incurred by the Commission or reasonably

expected to be incurred by the Commission in development of future phases of the Project. The total Capital Costs of the Project shall be those attributable to the present scope of the Project as of the execution of this contract, unless the scope is altered by mutual consent pursuant to subsequent paragraphs. Costs for items which essentially are replacements for existing improvements shall not be considered Capital Costs.

When the total Capital Cost obligations of the Project are met, payments for Capital Costs will cease. All interest earned by sinking fund deposits shall be credited to this computation and all amounts collected for reserves for debt shall also be taken into consideration in determining when Capital Cost obligations have been met.

The Commission shall also have the authority to adjust the water rate if the Project is redesigned as specified in Section 11 of this contract. The User and the Commission must mutually agree to any change of Water Rate for Capital Costs resulting from a redesign, or to any change of the Water Rate for Capital Costs resulting from a change in the percentage of the total cost financed by the Commission which is to be reimbursed collectively by the Water User Entities, as defined by Subsection 7.4.1.

7.5 **Billing Procedure.**

The Commission will furnish to the User, at the address shown on the signature page of this contract, not later than the tenth day of each quarter, an itemized statement of the payment due from the User for the preceding quarter. The metering equipment shall be read quarterly by the User on the last working day of each quarter and reported to the Commission within 24 hours in writing. The meter readings may be transmitted electronically in a form acceptable to the Commission and the User.

7.6 **When Payments Are Due.**

All payments shall be made no later than 45 days following receipt of the statement from the Commission. Payments not made by such date shall be considered delinquent and in default.

7.7 **Delinquent Payments and Default.**

The User shall cause to be levied and collected all necessary taxes and assessments, and shall set rates and charges, and will use all of the authority and resources available to it to meet its obligations under this contract, and will make in full all payments to be made pursuant to this contract on or before the date such payments become due.

In the event of any default by the User in making payments as required under this contract, the Commission may bring a civil action against the User in a North Dakota state district court.

During any period when the User is in default, the User shall remain obligated to make all payments required under this contract. Any action of the Commission pursuant to this section shall not limit or waive any remedy provided by the contract or by law for the recovery of money due or which may become due under this contract.

7.8 **Penalty for Late Payment.**

Every payment required to be paid by the User to the Commission under this contract, which is unpaid after its due date, shall be imposed a penalty of one percent (1%) per month of the amount of such delinquent payment from and after the date when the same becomes due and payable, provided that no penalty shall be chargeable against any adjustment made pursuant to Section 6.2 of this contract.

7.9 **Payments Dedicated to the Project.**

All payments collected by the Commission pursuant to this contract and the earnings thereon shall be held in a special fund or funds and dedicated to the construction, operation, maintenance and replacement of the Project in accordance with the laws of the State of North Dakota.

8. INDEMNIFICATION AND INSURANCE

Each party agrees to assume its own liability for any and all claims of any nature including all costs, expenses, and attorney's fees which may in any manner result from or arise out of this agreement.

The User shall secure and keep in force during the term of this contract, from insurance companies, government self-insurance pools or government self-retention funds, authorized to do business in North Dakota: 1) commercial general liability; 2) automobile liability; and 3) worker's compensation insurance all covering the User for any and all claims of any nature, including all costs, expenses, and attorneys' fees, which may in any manner arise out of or result from this contract. The minimum limits of liability required are $250,000 per person and $1,000,000 per occurrence for commercial general liability and automobile liability coverages, and statutory limits for worker's compensation. The User shall furnish to the Commission certificates of insurance evidencing these coverages are in effect and providing that the coverage may not be canceled or modified without thirty (30) days prior written notice to the Commission

If the User enters into a contract with a separate contractor for the performance of the work to be done pursuant to this contract, the User shall require all contractors, pursuant to an agreement between the User and the contractor, to:

1. Indemnify, save and hold harmless the State of North Dakota, its agencies, officers and employees; and the User, its agencies, officers and employees, from any and all claims of any nature, including costs, expenses, and attorneys' fees which may in any manner arise out of or result from acts or omissions in awarding this grant or performing work or activities under the contract, except for claims arising out of the State's or the User's sole negligence.

2. Secure and keep in force for a period of two years after completion of the contract between the User and the contractor, from insurance companies authorized to do business in the State of North Dakota: a) commercial general liability; b) automobile liability; and c) worker's compensation insurance all covering the contractor for any and all claims of any nature, including all costs, expenses, and attorneys' fees, which may in any manner arise out of or result from this contract.

3. Furnish the Commission with a certificate of insurance as evidence these policies are in effect. The minimum limit of liability required are $250,000 per person and $1,000,000 per occurrence for commercial general liability and automobile liability coverages, and statutory limits for workers' compensation. For any and all claims of any nature arising out of or resulting from this contract, the State of North Dakota and its agencies, officers, and employees (the "State") shall be endorsed on the commercial general liability policy as additional insureds covering the cost of defense, including expenses and attorneys' fees. Said endorsement shall provide that the policy and/or endorsement may not be canceled or modified without thirty (30) days prior written notice to the undersigned state representative, and that any attorney who represents the State under this policy must first qualify as and be appointed by the North Dakota Attorney General as a Special Assistant Attorney General as required under N.D.C.C. § 54-12-08. The User shall furnish a certificate of insurance and a copy of the additional insured endorsement to the undersigned state representative prior to commencement of this contract.

9. GENERAL PROVISIONS

9.1. Rules and Regulations.

The Commission will have the authority to develop and adopt such rules and regulations as the Commission may deem proper and necessary to carry out this contract and to govern the administration of this contract, pursuant to N.D.C.C. chapter 61-24.6. Such rules and regulations shall not be inconsistent with this contract. The User agrees to comply with all rules and regulations promulgated pursuant to N.D.C.C. chapter 61-24.6.

9.2 **Access to and Inspection of Books and Records.**

Each party shall have the right, during normal business hours, to inspect and make copies of the other party's books and official records relating to matters covered by this contract.

9.3 **Remedies not Exclusive.**

The use by either party of any remedy specified herein for the enforcement of this contract is not exclusive and shall not deprive the party using such remedy of, or limit the application of, any other remedy provided by law.

9.4 **Amendments.**

This contract may be amended at any time by mutual agreement of the parties, except insofar as any proposed amendments are in any way contrary to applicable law, but such amendments will not be binding or effective unless made in writing or executed by the parties.

9.5 **Waiver of Rights.**

Any waiver at any time by either party of its rights with respect to a default or any other matter arising in connection with this contract, shall not be deemed to be a waiver with respect to any other default or matter.

9.6 **Notices.**

All notices that are required either expressly or by implication to be given by any party to the other under this contract shall be in writing. All such notices shall be deemed to have been given and delivered, if delivered personally or if delivered by registered or certified mail. All notices shall be addressed to the parties at their addresses as shown on the signature page of this contract.

9.7 **Assignment.**

The provisions of this contract shall apply to and bind the successors and assigns of the respective parties, but no assignment or transfer of this contract, or any part hereof or interest herein, shall be valid until and unless approved by the non-assigning party. The Commission may delegate the operation and maintenance of the Project, but shall retain the obligation to establish water rates and annual budgets. The Commission shall not approve any assignment or transfer by the User to any Water User Entity unless and until the Commission has determined that the Water User Entity to which it is proposed that this contract be transferred or assigned has the necessary ability to satisfy the obligations of this contract.

10. ADJUSTMENT OF DESIGN

The Commission reserves the right to redesign the Project based upon the number and location of Water User Entities signing water service contracts.

11. EXPANSION OF PROJECT

Expansion of the Project beyond the scope shown in Exhibit 1 shall only be accomplished by mutual consent of all Water User Entities.

12. MERGER CLAUSE

This contract constitutes the entire contract between the parties. No waiver, consent, modification, or change of terms of this agreement shall bind either party unless in writing, signed by the parties, and attached herein. Such waiver, consent, modification, or change, if made, shall be effective only in a specific instance and for the specific purpose given. There are no understandings, agreements, or representations, oral or written, not specified herein regarding this contract.

IN WITNESS WHEREOF, the parties execute this contract on the date specified below.

NORTH DAKOTA STATE WATER COMMISSION
900 East Boulevard Avenue
Bismarck, ND 58505

By: David A. Sprynczynatyk

Title: Secretary

Date: 2/25/98

Approved and entered into by resolution of the State Water Commission this 13th day of February, 1998.

David A. Sprynczynatyk
Secretary and State Engineer

USER:

By: David E. Erickson

Title: Mayor

Date: 2-23-98

ADDENDUM NO. 1 TO THE
NORTHWEST AREA WATER SUPPLY PROJECT
CONTRACT

INDEMNIFICATION FOR
CONTROL, DISTRIBUTION, AND USE
BEYOND THE POINT OF MEASUREMENT

Under the terms of the Northwest Area Water Supply Project Contract, the North Dakota State Water Commission (Commission) is developing a project to deliver water and develop water supplies throughout northwestern North Dakota. The User agrees to be responsible for the control, distribution, and use of all water used beyond the point of measurement, and all services, maintenance, and repair of the User's distribution system. In consideration for the development of the project and in view of the fact that the distribution will be conducted under the control and supervision of the User, the User hereby agrees to indemnify and hold harmless the state of North Dakota and the Commission, its officers, agents, employees, and members, from all claims, suits, or actions of whatsoever nature including all costs, expenses, and attorneys fees which may in any manner result from or arise out of the control, distribution, use or other activity of the User beyond the point of measurement except for claims arising out of the state's own acts.

NORTH DAKOTA STATE
WATER COMMISSION

By:

David A. Sprynczynatyk
State Engineer

2/25/98

Date

CITY OF RUGBY

By:

2/23/98

Date

ADDENDUM NO. 2 TO THE
NORTHWEST AREA WATER SUPPLY PROJECT
CONTRACT NO. 237-4-1

DISCLOSURE OF INFORMATION

Purpose of Addendum

Rugby's portion of cost-share for the Northwest Area Water Supply Project Contract is being financed with bonds issued by the State Water Commission (Commission). In order to issue and market the bonds, Rugby must make certain covenants and provide certain information during the life of the bonds to the Commission, which the Commission in turn must file with certain repositories. This information is then available to the bondholders.

Contract No. 237-4-1 is amended as follows:

Section 1. User acknowledges, adopts, and makes the covenants set forth in Sections 6.04, 6.05, 6.06, 6.07, 6.08, 6.10, 6.11, 6.12, 6.13, 6.15, 8.11 of the North Dakota State Water Commission Water Development Revenue Bonds, Northwest Area Water Supply Project (Rugby Component) General Bond Resolution (Resolution).

Section 2. User also agrees to furnish to the Commission such financial information and operating data with respect to the User at such time and in such forms as the Commission shall reasonably request in order to comply with the provisions of S.E.C. Rule 15c2-12 (the Rule) as in effect from time to time and to provide to the Commission in a timely manner, notice of any of the following events with respect to bonds issued pursuant to the Resolution, if applicable and material:

(A) Principal and interest payment delinquencies.
(B) Non-payment related defaults.
(C) Unscheduled draws on debt service reserves reflecting financial difficulties.
(D) Unscheduled draws on credit enhancements reflecting financial difficulties.
(E) Substitution of credit or liquidity providers, or their failure to perform.
(F) Adverse tax opinions or events affecting the tax exempt status of the bonds issued pursuant to the Resolution.
(G) Modifications to rights of registered owners of the bonds issued pursuant to the Resolution
(H) Bond calls.
(I) Defeasance.
(J) Release, substitution or sale of property securing repayment of the bonds issued pursuant to the Resolution.
(K) Rating changes.

Some of the above "material events," as defined in the Rule, may not be applicable to this transaction.

User agrees that from time to time it will also provide notice to the Commission of the occurrence of other events, in addition to those listed above, if such events are material with respect to the bonds issued pursuant to the Resolution.

User will provide, in a timely manner, to the Commission, notice of a failure to satisfy the requirements of this section.

The intent of the User's undertaking pursuant to this Section is to facilitate the Commission's ability to comply with the requirements of the Rule. Accordingly, User agrees to provide the Commission with any information the Commission may reasonably require in order to comply with the requirements of the Rule, as in effect from time to time.

To the extent, the Rule no longer requires issuers of municipal securities to provide all or any portion of the information the User has agreed to provide pursuant to this Section. The obligation of the User to provide such information pursuant to this Section shall cease immediately.

The User agrees to promptly notify the Commission of any material change in the activities, prospects, or condition (financial or otherwise) of the User or the Rugby Component, as defined in the Resolution, or in the ability to make all payments or otherwise observe and perform its duties, covenants, obligations, and agreements under the Water Supply Contract entered into between the User and the Commission dated February 13, 1998, or any amendments to such contract.

The sole remedy available to the Commission or to any other person for the failure of the User to comply with any provision of this Section shall be an action for specific performance of the User's obligations under this Section.

NORTH DAKOTA STATE WATER COMMISSION

By:

David A. Sprynczynatyk
State Engineer

4/13/98
Date

CITY OF RUGBY

By:

Dave Cichos
Mayor

APRIL 6, 1998
Date

Water Development Plan: No
Plan Priority: N/A

DWR Date Received : 10/26/21

H5

18761 - Agribusiness Park Raw Water Supply Improvements

Application Details

Funding Opportunity:	9395-2021 Infrastructure Request
Funding Opportunity Due Date:	Dec 31, 2021 3:00 PM
Program Area:	Funding for Infrastructure in ND - FIND
Status:	Under Review
Stage:	Final Application
Initial Submit Date:	Oct 26, 2021 12:34 PM
Initially Submitted By:	Abby Ritz
Last Submit Date:	
Last Submitted By:	

Contact Information

Primary Contact Information

Active User*:	Yes
Type:	External User
Name:	Salutation Abby (First Name) Middle Name Ritz (Last Name)
Title:	
Email*:	abby.ritz@ae2s.com
Address*:	1815 Schafer Street, Suite 301
	AE2S
	Bismarck (City) North Dakota (State/Province) 58501 (Postal Code/Zip)
Phone*:	701-221-0530 Ext. (Phone) ###-###-####
Fax:	###-###-####
Comments:	

Organization Information

Status*:	Approved
Name*:	City of Grand Forks
Organization Type*:	Political Subdivision
Tax Id:	45-6002085
Organization Website:	www.greenwayggf.com

Address*:	255 North 4th Street
	Grand Forks North Dakota 58203 City State/Province Postal Code/Zip
Phone*:	701-738-8746 Ext. ###-###-####
Fax:	###-###-####
Benefactor:	
Vendor ID:	
PeopleSoft Supplier ID:	0000003350
Comments:	
Location Code:	ALL
SAM.gov Entity ID:	
SAM.gov Name:	
SAM.gov Entity ID Expiration Date:	
State Issued ID:	
Category #:	
Year Begin:	
Year Closed:	
NCES#:	
Restricted Indirect Cost Rate:	0.0%
Unrestricted Indirect Cost Rate:	0.0%

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study Name*:	Agribusiness Park Raw Water Supply Improvements
Sponsor(s)*:	City of Grand Forks
County*:	Grand Forks
City*:	Grand Forks
Description of Request*:	New
If Study, What Type:	
If Project/Program, What Type:	

Jurisdictions/Stakeholders Involved*:

City of Grand Forks

Specific Needs Addressed By the Project, Program or Study*:

Water supply to support new industrial and commercial growth

Description of Problem or Need and How Project Addresses that Problem or Need.

Description of Problem*:

As the City continues to grow and new industrial and agricultural businesses move to this community, infrastructure to deliver water supply is essential for supporting these economic development opportunities. There is an immediate need for raw water to a proposed business in the north part of the city that plans to begin construction on a new facility next year.

For this project,

Choose City, County or Water District*:	City
What is the Current Estimated Population?*:	59166

For this project,

What is the Benefited Population?*:	59166
Has Feasibility Study Been Completed?*:	No
Has Engineering Design Been Completed?*:	No
Have Assessment Districts Been Formed?*:	N/A
Have Land or Easements Been Acquired?*:	No
Has Sediment Analysis For Reconstruction Of An Existing Drain Been Completed?*:	N/A
Extraterritorial Jurisdiction?*:	No
Have You Applied For Any Federal Permits?*:	No
If Yes, Please Explain (include type/number):	
Have You Applied for any State Permits?*:	No
If Yes, Please Explain (include type/number):	
Have You Applied for any Local Permits?*:	No
If Yes, Please Explain (include type/number):	

Briefly explain the level of review the Project/Program/Study has undergone.

Level Review*:

Initial project planning is complete. Project has been discussed with DWR, NDDOC, and ND legislative leadership.

Do You Expect Any Obstacles To Implementation (i.e. problems with land acquisition, permits, funding, local opposition, environmental concerns, etc.)?

Obstacles*: No

Have you received, or do you anticipate receiving federal funding?

Federal Funding*: No

Implementation Timelines

Study*:	10/2021 Month/Year
Design*:	11/2021 Month/Year
Bid*:	05/2022 Month/Year

Construction Start*: 06/2022
Month/Year

Construction Completion*: 10/2023
Month/Year (00/0000)

Explain Additional Timeline Issues*:

Timing of project construction is impacted by final construction timeline of new business. Currently slated for construction in 2022 season.

Certification

Submitted by*: Abby Ritz 10/26/2021
First Name Last Name Date

Address*: 1815 Schafer Street, Suite 301
Address Line 1

Address Line 2

Bismarck North Dakota 58501-1217
City State Zip Code

Telephone Number*: 701-221-0530

Sponsor Email*: abby.ritz@ae2s.com

Consulting Engineer*: Shawn Gaddie

Engineer Telephone Number*: 701-746-8087

Engineer Email*: Shawn.Gaddie@AE2S.com

This section needs to be completed by the project sponsor.
I certify that, to the best of my knowledge, the provided information is true and accurate.

Certify*: Yes

Authorized Individual*: Abby Ritz 10/26/2021
First Name Last Name Date

Documentation

Documentation

Project Specific Map
(Including an inset map of location within state.)
CLICK HERE **to see examples.**

Project Specific Map*: Agribusiness Park Raw Water Improvements.pdf

Are You Seeking Department of Water Resources Cost-Share?*: Yes

Type of Request: Preconstruction

CLICK HERE **for Life Cycle Cost Analysis Instructions.**

Life Cycle Cost Analysis:

CLICK HERE **for Capital Improvement Plan Instructions.**

Capital Improvement Plan SFN 61938:

Approved Drainage Permit:

Results Of Positive Assessment Vote:

Sediment Analysis:

Acquisition Plan:

Proof of HMGP Funding Ineligibility:

CLICK HERE **for Economic Analysis Details.**

Economic Analysis:

Applicable Material:

Sources

Funding Amount Requested

State FY1	State FY2	Beyond State FY2	Total Cost Source	Type	Term	Interest Rate
$4,594,063.00	$4,594,062.00	$0.00	$9,188,125.00			
$4,594,063.00	**$4,594,062.00**	**$0.00**	**$9,188,125.00**			

Other Funding Sources

Type	Source	Grant or Loan	State FY1	State FY2	Beyond State FY2	Total Other Sources
Local	Cash Reserves or Bonding	N/A	$3,409,084.00	$3,409,084.00	$0.00	$6,818,168.00
			$3,409,084.00	**$3,409,084.00**	**$0.00**	**$6,818,168.00**

Project Total

Current Requested Amount:	$9,188,125.00	Requesting Preconstruction: 60% - $1,200,000
Other Funding Sources:	$6,818,168.00	
Total Project:	$16,006,293.00	

CITY OF GRAND FORKS
255 N 4TH STREET - P.O. BOX 5200 - GRAND FORKS, ND - 58206-5200

OFFICE OF THE MAYOR
BRANDON BOCHENSKI

(701) 746-2607
BBOCHENSKI@GRANDFORKSGOV.COM

October 26, 2021

Governor Doug Burgum
Chairman – North Dakota State Water Commission
900 East Boulevard Avenue, Dept 770
Bismarck, ND 58505-0850

Re: Cost-Share Request for Agribusiness Park Raw Water Supply Improvements

Dear Governor Burgum:

The City of Grand Forks has seen significant industrial development interest in recent years. Many of these unique economic development opportunities require significant water resources for their process and often they do not need fully treated potable water solutions. Two industries in particular are requesting nearly 7 to 9 million gallons per day (MGD) of raw water supply for their needs in the area of the City's Agribusiness Park. The Agribusiness Park already draws nearly 3 MGD of potable water to existing industries from the Grand Forks Regional Water Treatment Plant (GFRWTP). With this cost-share request, we are looking to diversify our water supply to this area of the City and spur over $1B in economic development activity from new and existing industry expansion.

Our cost-share application attached is for the pre-construction planning and design required to implement the recommended raw water supply improvements. We have arrived at this option after exploring multiple alternatives with the interested industries. In addition to the preferred raw water supply alternative, other alternatives have included everything from GFRWTP expansion, pretreatment expansion, and grey water supply alternatives from the City's wastewater system. After many deliberations with the interested industries, the recommended alternative provides the best solution to meet their resiliency, water quality and pricing objectives. Additionally, it preserves the potable water supply capacity for the remainder needs of the community and avoids a costly expansion of the GRWTP at this time.

To pay for the local share of these improvements, the City is working with the industry to develop cost of service based water rates that fairly allocate a proportionate share of the City's water utility costs to industry. Through our long-established rate setting policies, the City has always strived to negate impacts to existing utility customers when unique economic development opportunities materialize.

State Water Commission cost-share is an extremely important funding tool for the success of our existing and future residents, businesses, and industry. We sincerely appreciate your consideration of our request. If you should have any questions or require further information, please don't hesitate to contact me directly at bbochenski@grandforksgov.com or by phone at (701) 787-3735.

Sincerely,

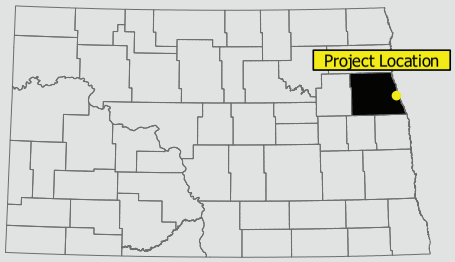
Mayor Brandon Bochenski

City of Grand Forks

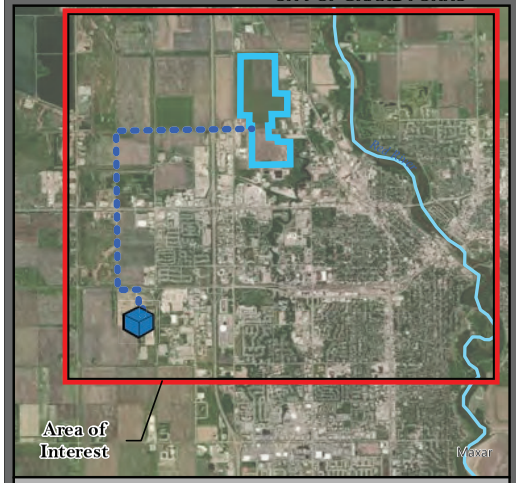
Attachments

CC: Grand Forks City Council
City Administrator Todd Feland
Finance Director Maureen Storstad
Water Works Director Melanie Parvey

Agribusiness Park Raw Water Improvements



CITY OF GRAND FORKS



Proposed Infrastructure

- Raw Water Booster Station
- Raw Water Pipeline

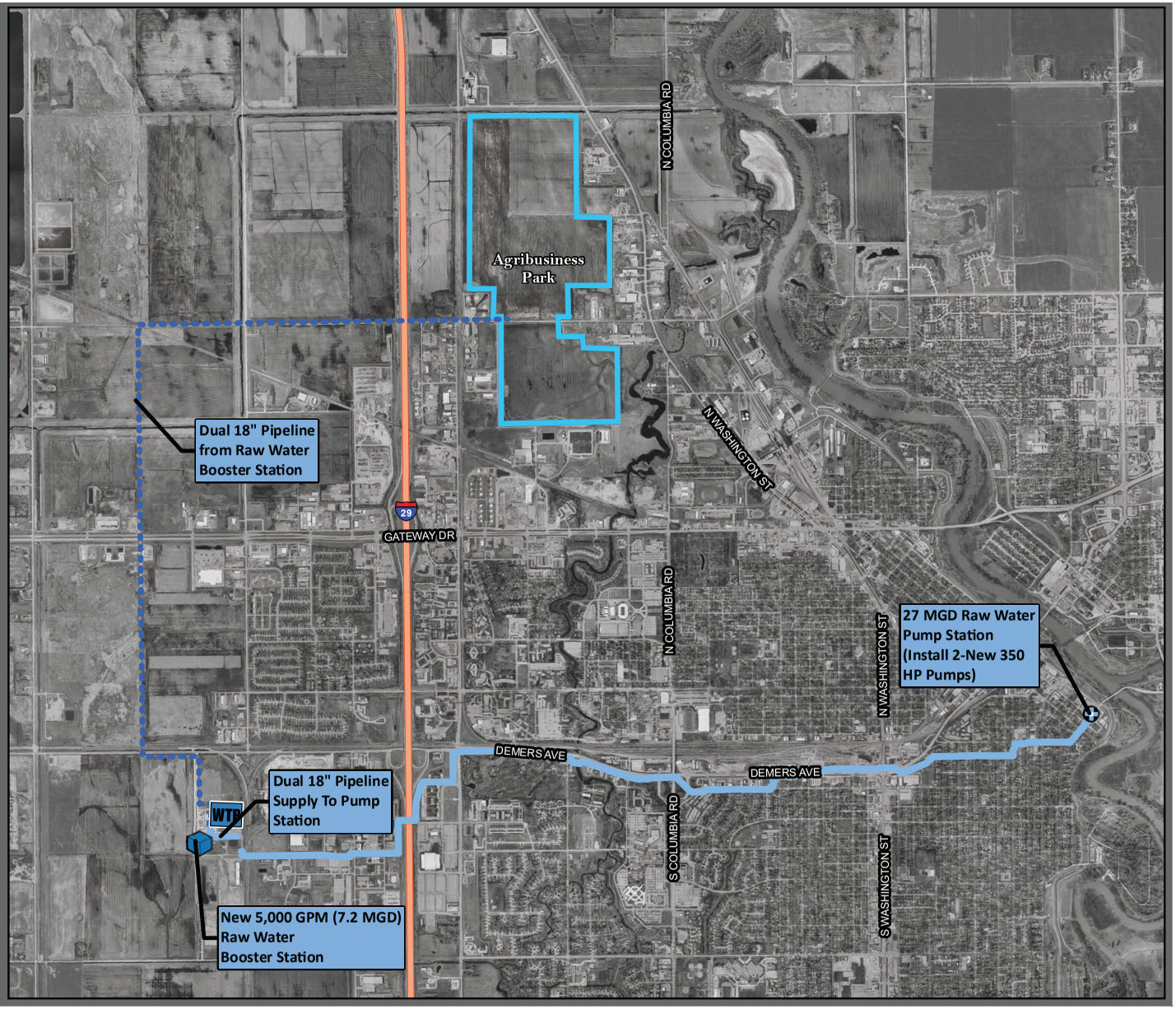
Existing Infrastructure

- WTP — Water Treatment Plant
- Raw Water Intake
- 30" Dual Raw Water Transmission

0 1000 2000 Feet

LAST UPDATED: 10/25/2021

PREPARED BY: AE2S



DELINEATION OF COSTS
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
PLANNING AND EDUCATION
SFN 61801 (10/2021)

DWR Date Received : October 26, 2021

Project:	Agribusiness Park Raw Water Supply Improvements
Sponsor:	City of Grand Forks
Contact:	Todd Feland, City Administrator
Phone:	701-787-3735
Engineer:	Shawn Gaddie, AE2S
Phone:	701-746-8087

Total Cost :	$ 16,006,293
Ineligible Cost :	$ 692,726
Eligible Cost :	$ 15,313,567
Local Cost :	$ 6,818,193

Date: October 26, 2021

	Cost-Share $
	$ 9,188,100
Preconstruction :	$ 1,200,000
Construction :	$ 7,988,000

Project Type:	**Cost-share %**
Municipal Water Expansion/Improvement	60%

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share $ *
		Construction Costs						
1	6.7%	Mobilization	1	LS	821,816.00	$ 821,816	60%	$ 493,090
2	1.7%	Boring - Directional	900	LF	225.00	$ 202,500	60%	$ 121,500
3	7.3%	Boring - Cased	2100	LF	425.00	$ 892,500	60%	$ 535,500
4	47.3%	Water Main 18 in	46200	LF	125.00	$ 5,775,000	60%	$ 3,465,000
5	3.3%	Fittings	1	LS	405,000.00	$ 405,000	60%	$ 243,000
6	0.4%	Connection to Existing Line	1	LS	45,000.00	$ 45,000	60%	$ 27,000
7	2.1%	Gate Valve	48	EA	5,270.83	$ 253,000	60%	$ 151,800
8	0.6%	Site Work	1	LS	71,700.00	$ 71,700	60%	$ 43,020
9	9.9%	Pump Station	1	LS	1,203,000.00	$ 1,203,000	60%	$ 721,800
10	11.7%	Booster Station	1	LS	1,425,000.00	$ 1,425,000	60%	$ 855,000
11	0.0%		0		-	$ -	60%	$ -
12	0.0%		0		-	$ -	60%	$ -
13	0.0%		0		-	$ -	60%	$ -
14	0.0%		0		-	$ -	60%	$ -
15	0.0%		0		-	$ -	60%	$ -
16	0.0%		0		-	$ -	60%	$ -
17	0.0%		0		-	$ -	60%	$ -
18	0.0%		0		-	$ -	60%	$ -
19	0.0%		0		-	$ -	60%	$ -
20	0.0%		0		-	$ -	60%	$ -
21	0.0%		0		-	$ -	60%	$ -
22	0.0%		0		-	$ -	60%	$ -
23	0.0%		0		-	$ -	60%	$ -
24	0.0%		0		-	$ -	60%	$ -
25	0.0%		0		-	$ -	60%	$ -
26	0.0%		0		-	$ -	60%	$ -
		Construction Sub-Total				$ 11,094,516	60%	$ 6,656,710
	10.0%	**Contingency**				$ 1,106,490	60%	$ 663,894
	76.2%	**Construction Total**				$ 12,201,006	60%	$ 7,320,603
		Preconstruction Costs						
27	16.4%	Final Design	1	NA	2,000,000.00	$ 2,000,000	60%	$ 1,200,000
28	0.0%		0		-	$ -	60%	$ -
29	0.0%		0		-	$ -	60%	$ -
30	0.0%		0		-	$ -	60%	$ -
31	0.0%		0		-	$ -	60%	$ -
	12.5%	**Preconstruction Total**				$ 2,000,000	60%	$ 1,200,000
		Construction Engineering Costs						
32	7.3%	Construction Contract Management	1	NA	887,561.28	$ 887,561	60%	$ 532,537
33	1.8%	I&C System Services	1	NA	225,000.00	$ 225,000	60%	$ 135,000
34	0.0%		0		-	$ -	60%	$ -
35	0.0%		0		-	$ -	60%	$ -
36	0.0%		0		-	$ -	60%	$ -
	7.0%	**Construction Engineering Total**				$ 1,112,561	60%	$ 667,537
		Other Eligible Costs						
37	0.0%		0			$ -	60%	$ -
38	0.0%		0		-	$ -	60%	$ -
39	0.0%		0		-	$ -	60%	$ -
40	0.0%		0		-	$ -	60%	$ -
41	0.0%		0		-	$ -	60%	$ -
	0.0%	**Other Eligible Total**				$ -	60%	$ -
		In-eligible Costs						
42	3.5%	Legal Expenses	1	NA	554,725.80	$ 554,726	0%	$ -
43	0.9%	Easement	13.8	AC	10,000.00	$ 138,000	0%	$ -
44	0.0%		0		-	$ -	0%	$ -
45	0.0%		0		-	$ -	0%	$ -
	4.3%	**Other Ineligible Total**				$ 692,726	0%	$ -
	100.0%	**Total**				$ 16,006,293		
		Eligible Total				$ 15,313,567	60%	$ 9,188,140
		Federal or State Funds That Supplant Costs				$ -		
		Eligible Cost Total				$ 15,313,567	60%	$ 9,188,140

* The Cost-share estimate is purely for planning and informational purposes only and does not, in any way, guarantee a financial commitment to any degree, from the State Water Commission.

Life Cycle Cost Analysis Review

Sponsor: City of Grand Forks
Project Title: Agribusiness Park Raw Water Supply Improvements **Date:** January 18, 2022

Explanation of Alternatives:

A1: This project is a 5,000 GPM dual raw water line from the Grand Forks Regional Water Treatment Plant (GFRWTP) to the site. (Preferred)

A2: This project is a 5,000 GPM single raw water line from the GFRWTP to the site.

A3: This project is a 5,000 GPM pretreated water line from the GFRWTP to the site, and an 8 MGD pretreatment expansion at the GFRWTP.

Inputs:

	A1 - 5,000 GPM Dual Raw Water Line	5,000 GPM Single Raw Water Line	5,000 GPM Pretreated Water Line	
Users Served	1	1	1	
Construction Cost	$15,340,600	$9,928,000	$27,693,200	
Annual O & M	$222,630	$222,630	$581,628	

Details:

(Preferred) A1 - Construct a new 5,000 GPM raw water pump station on the south side of the GFRWTP that would transfer raw water to the agribusiness park via two new 18-inch raw water pipes. The dual 18-inch raw water pipes would provide for additional future users as well as partial redundancy should one of the pipelines break or require maintenance. Additional improvements include the installation of additional vertical turbine pumps within the existing raw water pump station.

A2 - Construct a new 5,000 GPM raw water pump station on the south side of the GFRWTP that would transfer raw water to the agribusiness park via one new 18-inch raw water pipe. This alternative minimizes cost by providing only one line, but also provides no surplus capacity for additional users, nor does it provide redundancy. Additional improvements include the installation of additional vertical turbine pumps within the existing raw water pump station.

A3 - Construct a new 5,000 GPM pretreated water line from the GFRWTP to the site, and an 8 MGD pretreatment expansion at the GFRWTP. The pretreated water would then flow to a new 5,000 GPM pretreated water pump station on the north side of the GFRWTP before pumping to the agribusiness park via two new 18-inch water pipes. The dual 18-inch raw water pipes provide for additional future users as well as partial redundancy should one of the pipelines break or require maintenance. Additional improvements include the installation of additional vertical turbine pumps within the existing raw water pump station.

Model Function:

The economic model appears to have functioned properly. The results are deemed to be reliable and repeatable with the inputs provided by the project sponsor.

LCCA Model Results:

Scenario Analysis - Present Value Life Cycle Cost Summary

Present Value	**A1 - 5,000 GPM Dual Raw Water Line**	5,000 GPM Single Raw Water Line	5,000 GPM Pretreated Water Line	
Capital Costs	$15,153,000	$9,807,000	$27,356,000	
O&M	$6,035,000	$6,035,000	$15,759,000	
Repair, Rehab, Replacement	$6,280,000	$6,019,000	$8,743,000	
Salvage Value	$82,000	$42,000	$1,103,000	
Total PVC	**$27,386,000**	**$21,819,000**	**$50,755,000**	
PV Cost Per User	**$27,386,000**	**$21,819,000**	**$50,755,000**	

Current Water Rate (Cost Per 5000g)		**$23**			
Comparable Water Rate		**$47**			
Total Municipal Service Users		1	1	1	
Cost-Share Percent		60%	60%	60%	
	Local Share	$6,061,200	$3,922,800	$10,942,400	
	Other Funding	$0	$0	$0	
	Total Local	$6,061,200	$3,922,800	$10,942,400	
Payment Per User With Cost-Share		**$30,662.60**	**$19,844.79**	**$55,355.78**	
	Local Share	$15,153,000	$9,807,000	$27,356,000	
	Other Funding	$0	$0	$0	
	Total Local	$15,153,000	$9,807,000	$27,356,000	
Payment Per User Without Cost-Share		**$76,656.50**	**$49,611.98**	**$138,389.45**	

Explanation of Results:

The preferred project is the two (2) raw water line project (A1). The present value cost of this alternative is $27,386,000. The present value cost per user (one) for this project is $27,386,000. The monthly user cost of the local share with SWC cost-share participation is $30,662 per month compared to $76,656 without SWC cost-share participation.

	Year		Annual Population Growth Rate	Average Annual Population Increase/Decrease
ND Dept. of Commerce	2010	2020		
Population & Trends	52,838	55,950	0.6%	311

Other Comments:

There is an additional $693,000 in ineligible legal and other expenses associated with this project. How this or similar legal expenses would vary between alternatives is not clear. This additional expense was not included to maintain the apples to apples with construction costs only. However for the community's understanding of their financial commitment this should be added to the final results.

LCCA Version Version 1.2021-7.26

CAPITAL IMPROVEMENT PLAN (CIP)
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
PLANNING AND EDUCATION DIVISION
SFN 61938 (7/2021)

System: Grand Forks - Agribusiness Park Raw Water Supply Improvements
Date: 10/26/21

Population: 59,166
Users: 15,404

ASSET	UNITS	UNIT COST	QTY	RESERVE REPLACEMENT %	REPLACEMENT COST	AVERAGE LIFE (YRS)	ANNUAL RESERVE	MONTHLY RESERVE	MONTHLY RESERVE PER CUSTOMER
Existing Project CIP Costs									
Water Treatment Plant		$149,485,794.41	1	50.00%	$74,742,897	50	$1,494,858	$124,571	$8.09
Distribution System		$47,894,381.01	1	50.00%	$23,947,191	50	$478,944	$39,912	$2.59
SUBTOTAL Existing CIP Costs					$98,690,088		$1,973,802	$164,483	$10.68
New Project CIP Costs									
Raw Water Line		$15,340,596.60	1	50.00%	$7,670,298	50	$153,406	$12,784	$0.83
SUBTOTAL New CIP Costs					$7,670,298		$153,406	$12,784	$0.83
TOTAL Existing and New Project CIP					$106,360,386		$2,127,208	$177,267	$11.51

	TOTAL RESERVES	ANNUAL RESERVE	MONTHLY RESERVE	MONTHLY RESERVE PER CUSTOMER
Current:	$6,833,309	$845,000	$70,416.67	$4.57
Adjustment:	$99,527,077	$1,282,208	$106,851	$6.94

	Monthly Ave Gal/user	Monthly $/kgal
Required	5,000	$2.30
Current	5,000	$0.91
Adjustment	5,000	$1.39

Report Prepared by (Title): Abby Ritz (AE2S)
Date: 10/26/21

Notes:

Instructions
1 - Fill in colored items
2 - Enter Existing asset project CIP costs
3 - Enter New asset project CIP costs
4 - Enter current total reserves and annual reser

Water Development Plan: No
Plan Priority: N/A

DWR Date Received: 9/27/2021

H6

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WATER COMMISSION COST-SHARE APPLICATION CHECKLIST

(This checklist must be attached to all applications for Water Commission cost-share assistance.)

Project sponsors requesting cost-share assistance from the North Dakota Water Commission are required to submit completed applications, including all supplemental materials, at least 45 days in advance of meetings. Incomplete applications or those submitted after the 45 day deadline will not appear on the next meeting agenda. Project sponsors, or their authorized representative, must verify that the following information is included as part of their application package for cost-share assistance.

Project Name:	Sponsoring Entity:
Raw Water Supply and Gate Valve Improvements	McLean Sheridan RW/Riverdale/Underwood

Initial If Included, or "X" If Not	SWC Cost-Share Application Materials ***Required For All Applications**
GD	*Cost-Share Application Form (SFN 60439)
GD	*Project Specific Map (Including an inset map of location within state.) See Examples
GD	*Detailed Project Costs SFN 61801 (complete fillable worksheet)
X	Approved Drainage Permit (Rural Flood Control Only)
X	Results Of Positive Assessment Vote (Rural Flood Control Only)[1]
X	Sediment Analysis (Drain Reconstruction Only)
X	Acquisition Plan (Flood Recovery Property Acquisition Program Only)
X	Proof of HMGP Funding Ineligibility (Flood Recovery Property Acquisition Program Only)
X	Plans & Specifications For Bidding Project Construction (Construction Requests Only)
X	Economic Analysis Worksheet (Flood Control & Water Conveyance Construction Only)
GD	Life Cycle Cost Analysis Worksheet (Water Supply Construction Only)
GD	Capital Improvement Plan SFN 61938 (Water Supply Construction Only)

[1] *A pre-application process is allowed for assessment projects. (See Project Funding Policy, Procedure, and General Requirements)*

I hereby certify that the information contained in this application for cost-share assistance is true and accurate, and all required materials have been provided with this application. I have read and understand the Water Commission's requirements for a completed application, and further understand that the submission of an incomplete application package will not be considered by the Water Commission for cost-share assistance.

Jerry Orth		
Project Sponsor (Printed Name)	Project Sponsor (Signature)	Date

PLEASE NOTE

The cost-share application (SFN 60439); Life Cycle Cost Analysis Worksheet; Economic Analysis Worksheet; Project Funding Policy, Procedure, and General Requirements; and future meeting dates are available via the Water Commission website at swc.nd.gov. If you have questions, please call 701-328-4989 or email swccostshare@nd.gov.

September 27, 2021

John Paczkowski, P.E.
State Engineer
North Dakota State Water Commission
900 East Boulevard Avenue, Dept. 770
Bismarck, North Dakota 58105-0850

Copy via email: Original US Mail

Subject: Raw Water Supply and Gate Valve Improvements
City of Riverdale
Riverdale, ND

The City of Riverdale, ND is requesting State Water Commission funding to replace the raw water supply line for the City of Riverdale, City of Pick City, City of Underwood, and a portion of the Mclean Sheridan Rural Water District system. The project involves rerouting the raw water supply line to the south of the Garrison Dam bridge deck and then back up to the Riverdale water treatment plant. The Regional WTP provides water to Riverdale and the other 3 entities.

The WTP is supplied with raw water from the base of the Garrison Dam located near the power plant portion of the dam. The water is then pumped along the backside of the dam, under the bridge-deck of the spillway, and over to the WTP on the west side of Riverdale. The existing piping was replaced in the 1980's, except for the section under the bridge-deck of the spillway. This piece of line is cast iron with insulation wrapped around the line and heat trace wire to prevent the line from freezing. The line was installed in 1966. The existing cast iron line is corroded, rusted, and heavily pitted and is at the end of its service life. The heat trace lines no longer work, leaving the line susceptible to freezing. The proposed project would reroute this section of the raw water transmission line south of the Garrison Dam bridge deck. In total, the system serves a population of over 1,200 people and is the only raw water supply that they have. The second portion of the project is to replace all gate valves in Riverdale. The existing gate valves do not operate making it impossible to operate the system

Our Engineer has included a detailed opinion of cost totaling $6,023,400 in total engineering and construction costs for the water supply and gate valve improvements. Total Preliminary Engineering costs total $375,000. We consider this a regional system as it services 3 cities and a rural water district, so we are respectfully requesting 75% cost share for the project.

For the preliminary engineering phase we are requesting funding on this project for all eligible preliminary engineering costs to be funded at 75% ($281,250) cost share from the State Water Commission. The remaining 25% ($93,750) will be funded through a DWSRF loan and paid through user fees of the entire system.

If you have any questions regarding the applications, please contact Jerry Orth (City of Riverdale) at (701) 654-7636 or AJ Tuck (Engineer) at (701) 391-1041. Your time and efforts with this program are greatly appreciated!

Sincerely,

Jerry Orth
City of Riverdale
Enclosures

COST-SHARE REQUEST

NORTH DAKOTA WATER COMMISSION
PLANNING DIVISION
SFN 60439 (7/2021)

This form is to be filled out by the project or program sponsor with Water Commission staff assistance as needed. Applications for cost-share are accepted at any time. However, applications received less than 45 days before a Water Commission meeting will be held for consideration at the next scheduled meeting.

Please answer the following questions as completely as possible. Supporting documents such as maps, detailed cost estimates, and engineering reports should be attached to this form. If additional space is required, please use extra sheets as necessary.

For information regarding cost-share program eligibility see the *Water Commission Cost-Share Policy, Procedure, and General Requirements* – available upon request or at www.swc.nd.gov.

Project, Program, Or Study Name
Raw Water Supply and Gate Valve Improvements

Sponsor(s)
McLean Sheridan Rural Water/City of Riverdale/City of Underwood

County	City	Township/Range/Section
McLean	Riverdale	T146N/R84W/Sec3-4

Request Type ☐ New ☒ Updated (previously submitted)

Description Type ☒ Pre-Construction ☐ Construction

If Study, What Type ☐ Water Supply ☐ Hydrologic ☐ Floodplain Mgmt. ☐ Feasibility ☐ Other

If Project/Program

☐ Bank Stabilization	☐ Irrigation	☐ Recreation	☐ Snagging & Clearing
☐ Dam Safety/EAP	☐ Multi-Purpose	☐ Ring Dike Program	☐ Water Retention
☐ FEMA Levee Program	☒ Municipal Water Supply	☐ Rural Flood Control	
☐ Flood Protection Program	☐ Property Acquisition Program	☐ Rural Water Supply	

Jurisdictions/Stakeholders Involved In This Project

The stakeholders in this project are McLean-Sheridan Rural Water, Underwood, Riverdale, and Pick City. It requires coordination with the Army Corps of Engineers to access the Raw Water Line that runs under the spillway bridge deck.

Description Of Problem Or Need And How The Project Provides A Solution

Riverdale's water treatment plant is supplied with water from a raw water line that runs underneath the Garrison Dam spillway bridge deck. This system feeds treated water to McLean Sheridan Rural Water users, Underwood, Pick City, and Riverdale. In total the system serves around 1270 users. The existing raw water line is cast iron from one end of the bridge to the other. The line was installed in 1966 and is at the end of its service life. The line is corroding, rusted, and is experiencing freezing issues due to the faulty heat trace wires. This project would reroute the transmission line south of the Garrison Dam bridge deck. This would solve freezing problems and replace 26000 feet of the transmission line. The other issue the system is experiencing is that the gate valves are outdated and inoperable. The valves are double brass gate valves with no rubber seals. When closed the valves still leak water. This creates a problem when breaks do occur. Since the valves can't be completely closed the system must be completely shut down to make any repairs.

Level Of Study Completed

This project is in preliminary design face. We have analyzed multiple options to seek a solution to this problem and have agreed upon, with the US Army Corp of Engineers, replacing the raw water line and the gate valves. Multiple site visits, conversations with contractors, and meetings with local leaders were had.

Describe Potential Obstacles To Implementation

Land Acquisition
No land acquisition is needed.

Permits
USACE, NDDEQ, ND State Water Commission, NDDOT, NDGF

Funding
Funding is the biggest obstacle. The sponsors do not have the necessary funds to complete this project alone.

Local Opposition
No local opposition is anticipated as this project is necessary.

Environmental Concerns
No environmental concerns anticipated

Other

Funding Timeline (carefully consider when SWC cost-share will be needed)

Source	Total Cost	2021-2023 7/1/21-6/30/23	2023-2025 7/1/23-6/30/25	Beyond 7/1/25
Federal	$0.00	$	$	$
Water Commission	$4,517,550.00	$4,517,550.00	$	$
Other State	$1,505,850.00	$1,505,850.00	$	$
Local	$0.00	$	$	$
Total	$6,023,400.00	$6,023,400.00	$ 0.00	$ 0.00

Funding Detail (provide names and amounts from all potential funding sources from the table above.)

Source	Amount	Grant Or Loan	Term	Interest
State Water Commision	$ 4,517,550.00 3,614,000.00	Grant 60%		%
DWSRF	$ 1,505,850.00 2,409,400.00	Loan	20	2 %
	$			%
Current Request Preconstruction	$ 225,000.00			%

Explain Timelines For All Phases And Their Current Status
The City is ready to start preliminary engineering on the project. Anticipated construction is 2023.

Study (Month/Year)	Design (Month/Year)	Bid (Month/Year)
August 2021	September 2022	April 2023

Construction Start (Month/Year)	Construction Completion (Month/Year)
June 2023	October 2023

Has Economic Analysis Been Completed?	☐ Yes	☐ No	☐ Ongoing	☒ Not Applicable
Has Life Cycle Cost Analysis Been Completed?	☒ Yes	☐ No	☐ Ongoing	☐ Not Applicable
Has Feasibility Study Been Completed?	☒ Yes	☐ No	☐ Ongoing	☐ Not Applicable
Has Engineering Design Been Completed?	☐ Yes	☐ No	☒ Ongoing	☐ Not Applicable
Have Land Or Easements Been Acquired?	☐ Yes	☐ No	☐ Ongoing	☒ Not Applicable

Have Assessment Districts Been Formed? ☐ Yes ☐ No ☐ Ongoing ☒ Not Applicable — If Yes, (Date)?

Are Connections For New Rural Customers Located Within The Extra-Territorial Jurisdiction Of A Municipality? ☐ Yes ☒ No

Have You Applied For Any Federal Permits?	☐ Yes	☒ No	☐ Not Applicable
Have You Been Approved For Any Federal Permits?	☐ Yes	☒ No	☐ Not Applicable

Type	Number
US Army Corps of Engineers	

If Yes, Please Explain
We will be applying for a permit from the USACE to perform construction on the water line

Have You Applied For Any State Permits?	☐ Yes	☒ No	☐ Not Applicable
Have You Been Approved For Any State Permits?	☐ Yes	☒ No	☐ Not Applicable

Type	Number
NDDEQ Plan Approval	

If Yes, Please Explain
We will submit Plans to the NDDEQ to be approved

Have You Applied For Any Local Permits?	☐ Yes	☐ No	☒ Not Applicable
Have You Been Approved For Any Local Permits?	☐ Yes	☐ No	☒ Not Applicable

Type	Number

If Yes, Please Explain

Submitted By	Date
Jerry Orth	

Address	City	State	ZIP Code
PO Box 507	Riverdale	ND	58565

Sponsor's Telephone Number	Sponsor's Email Address
701-654-7636	

Engineer's Name	Engineer's Telephone Number
AJ Tuck	701-391-1041

Engineer's Company	Engineer's Email Address
Moore Engineering, Inc.	AJ.Tuck@mooreengineeringinc.com

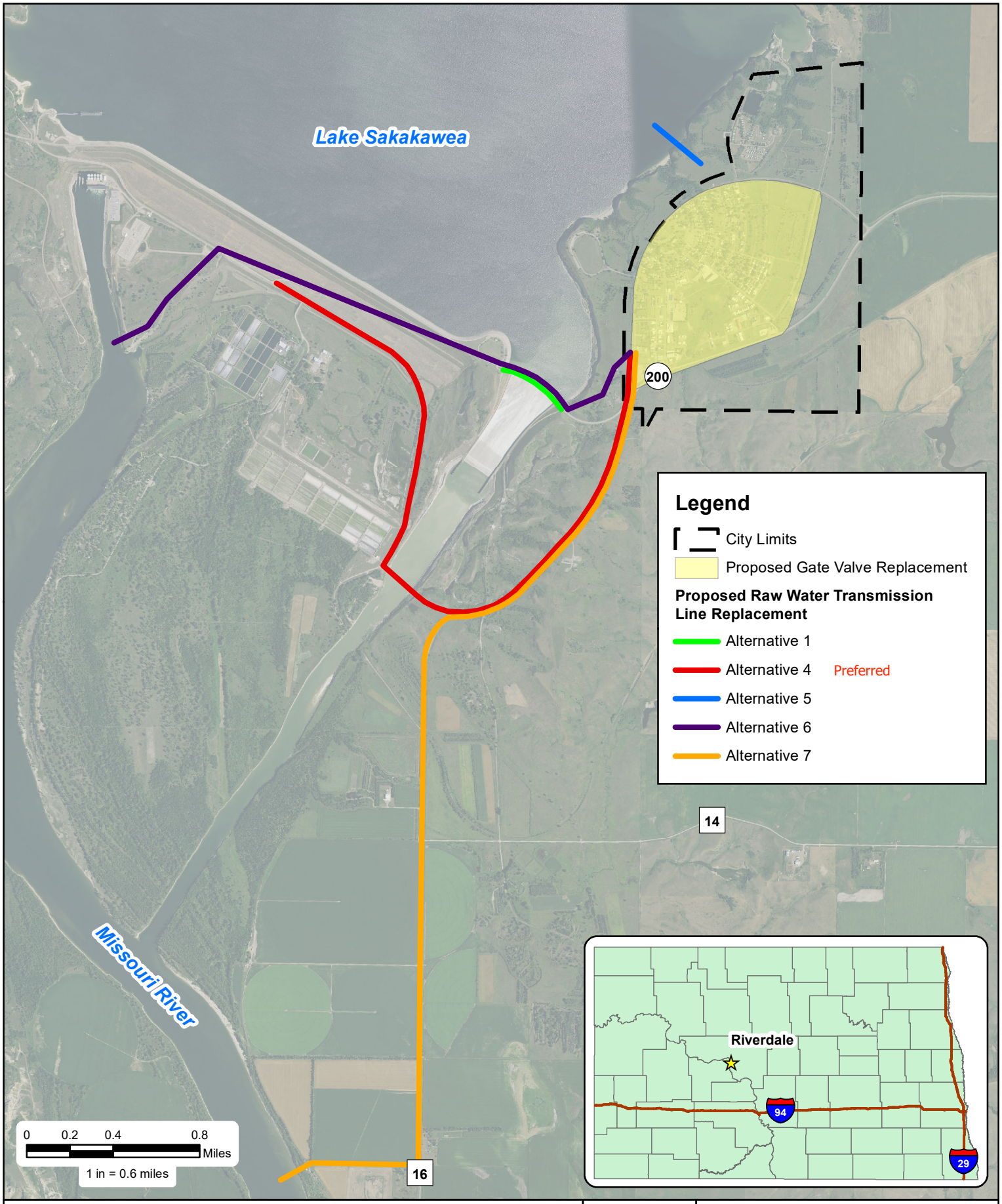
I Certify That, To The Best Of My Knowledge, The Provided Information Is True And Accurate.

Signature	Date

E-MAIL TO:
swccostshare@nd.gov

OR

Submit Via Email



PROJECT LOCATION MAP
RIVERDALE, NORTH DAKOTA

Created By: TJS Date Created: 07/06/20 Date Saved: 09/22/21 Date Plotted: NEVER Date Exported: 09/22/21
Plotted By: tanner.schmidt Parcel Date: N/A Aerial Image: 2020 County NAIP SIDS Elevation Data: Lidar
Horizontal Datum: NAD 1983 StatePlane North Dakota North FIPS 3301 Feet Vertical Datum: NAVD1988
T:\Projects\22000\22036\22036_Water_Transmission_Project_Alt_6_and_7_Location_Map.mxd

N W E S

moore engineering, inc.

DELINEATION OF COSTS
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
PLANNING AND EDUCATION
SFN 61801 (10/2021)

DWR Date Received : September 29, 2021

Project:	Raw Water Supply and Gate Valve Improvements
Sponsor:	City of Riverdale
Contact:	Jerry Orth
Phone:	701_654_7636
Engineer:	AJ Tuck, Moore Engineering, Inc.
Phone:	701_391)1041

Total Cost :	$ 6,023,400
Ineligible Cost :	$ -
Eligible Cost :	$ 6,023,400
Local Cost :	$ 2,409,400

Date: September 27, 2021

	Cost-Share $
	$ 3,614,000
Preconstruction :	$ 225,000
Construction :	$ 3,389,000

60% cost-share per policy

Project Type:	**Cost-share %**
Municipal Water Expansion/Improvement	60%

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share $ *
		Construction Costs						
1	2.7%	Mobilization	1	LS	135,000.00	$ 135,000	60%	$ 81,000
2	52.0%	Water Main 10 in	26000	LF	100.00	$ 2,600,000	60%	$ 1,560,000
3	2.6%	Gate Valve - 10"	15	EA	8,500.00	$ 127,500	60%	$ 76,500
4	1.4%	Gate Valve - 6"	15	EA	4,500.00	$ 67,500	60%	$ 40,500
5	12.0%	Gate Valve - 10"	100	EA	6,000.00	$ 600,000	60%	$ 360,000
6	2.0%	Seeding	1	EA	100,000.00	$ 100,000	60%	$ 60,000
7	5.5%	Paving	1	EA	275,000.00	$ 275,000	60%	$ 165,000
8	1.0%	Traffic Control	1	LS	50,000.00	$ 50,000	60%	$ 30,000
9	0.3%	Stormwater Management	1	LS	15,000.00	$ 15,000	60%	$ 9,000
10	2.0%	Clearing and Grubbing	1	LS	100,000.00	$ 100,000	60%	$ 60,000
11	1.0%	Testing Allowance	1	LS	50,000.00	$ 50,000	60%	$ 30,000
12	8.0%	Boring - Poly	1	LS	400,000.00	$ 400,000	60%	$ 240,000
13	0.5%	Air Release Valve	6	EA	4,000.00	$ 24,000	60%	$ 14,400
14	0.0%		0		-	$ -	60%	$ -
15	0.0%		0		-	$ -	60%	$ -
16	0.0%		0		-	$ -	60%	$ -
17	0.0%		0		-	$ -	60%	$ -
18	0.0%		0		-	$ -	60%	$ -
19	0.0%		0		-	$ -	60%	$ -
20	0.0%		0		-	$ -	60%	$ -
21	0.0%		0		-	$ -	60%	$ -
22	0.0%		0		-	$ -	60%	$ -
23	0.0%		0		-	$ -	60%	$ -
24	0.0%		0		-	$ -	60%	$ -
25	0.0%		0		-	$ -	60%	$ -
26	0.0%		0		-	$ -	60%	$ -
		Construction Sub-Total				$ 4,544,000	60%	$ 2,726,400
	10.0%	**Contingency**				$ 454,400	60%	$ 272,640
	83.0%	**Construction Total**				$ 4,998,400	60%	$ 2,999,040
		Preconstruction Costs						
27	2.5%	Preliminary Design	1	NA	125,000.00	$ 125,000	60%	$ 75,000
28	4.8%	Final Design	1	NA	238,000.00	$ 238,000	60%	$ 142,800
29	0.2%	Bidding / Negotiations	1	NA	12,000.00	$ 12,000	60%	$ 7,200
30	0.0%		0		-	$ -	60%	$ -
31	0.0%		0		-	$ -	60%	$ -
	6.2%	**Preconstruction Total**				$ 375,000	60%	$ 225,000
		Construction Engineering Costs						
32	2.0%	Construction Contract Management	1	NA	100,000.00	$ 100,000	60%	$ 60,000
33	6.0%	Project Inspection	1	NA	300,000.00	$ 300,000	60%	$ 180,000
34	1.2%	Post-Construction / Warranty	1	NA	60,000.00	$ 60,000	60%	$ 36,000
35	0.0%		0		-	$ -	60%	$ -
36	0.0%		0		-	$ -	60%	$ -
	7.6%	**Construction Engineering Total**				$ 460,000	60%	$ 276,000
		Other Eligible Costs						
37	2.0%	Miscellaneous	1	NA	120,000.00	$ 120,000	60%	$ 72,000
38	0.8%	Permit Fees	1	NA	50,000.00	$ 50,000	60%	$ 30,000
39	0.3%	Mitigation Required By Law	1	NA	20,000.00	$ 20,000	60%	$ 12,000
40	0.0%		0		-	$ -	60%	$ -
41	0.0%		0		-	$ -	60%	$ -
	3.2%	**Other Eligible Total**				$ 190,000	60%	$ 114,000
		In-eligible Costs						
42	0.0%		1	NA		$ -	0%	$ -
43	0.0%		0		-	$ -	0%	$ -
44	0.0%		0		-	$ -	0%	$ -
45	0.0%		0		-	$ -	0%	$ -
	0.0%	**Other Ineligible Total**				$ -	0%	$ -
	100.0%	**Total**				$ 6,023,400		
		Eligible Total				$ 6,023,400	60%	$ 3,614,040
		Federal or State Funds That Supplant Costs				$ -		
		Eligible Cost Total				$ 6,023,400	60%	$ 3,614,040

* The Cost-share estimate is purely for planning and informational purposes only and does not, in any way, guarantee a financial commitment to any degree, from the State Water Commission.

DELINEATION OF COSTS
NORTH DAKOTA WATER COMMISSION
PLANNING DIVISION
SFN 61801 (7/2021)

SWC Date Received : September 29, 2021

Project Costs

Project:	Raw Water Supply and Gate Valve Improvements
Sponsor:	City of Riverdale
Contact:	Jerry Orth
Phone:	701_654_7636
Engineer:	AJ Tuck, Moore Engineering, Inc.
Phone:	701_391_1041

Total Cost :	$ 6,023,400
Ineligible Cost :	$ -
Eligible Cost :	$ 6,023,400
Local Cost :	$ 1,505,800

Date: September 27, 2021

Cost-Share $
$ 4,517,600

75% cost-share requested by sponsor

Project Type:	**Cost-share %**
Rural Water - Expansion/Improvement	75%

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share $ *
		Construction Costs						
1	2.7%	Mobilization	1	LS	135,000.00	$ 135,000	75%	$ 101,250
2	52.0%	Water Main 10 in	26000	LF	100.00	$ 2,600,000	75%	$ 1,950,000
3	2.6%	Gate Valve - 10"	15	EA	8,500.00	$ 127,500	75%	$ 95,625
4	1.4%	Gate Valve - 6"	15	EA	4,500.00	$ 67,500	75%	$ 50,625
5	12.0%	Gate Valve - 8"	100	EA	6,000.00	$ 600,000	75%	$ 450,000
6	2.0%	Seeding	1	EA	100,000.00	$ 100,000	75%	$ 75,000
7	5.5%	Paving	1	EA	275,000.00	$ 275,000	75%	$ 206,250
8	1.0%	Traffic Control	1	LS	50,000.00	$ 50,000	75%	$ 37,500
9	0.3%	Stormwater Management	1	LS	15,000.00	$ 15,000	75%	$ 11,250
10	2.0%	Clearing and Grubbing	1	LS	100,000.00	$ 100,000	75%	$ 75,000
11	1.0%	Testing Allowance	1	LS	50,000.00	$ 50,000	75%	$ 37,500
12	8.0%	Boring - Poly	1	LS	400,000.00	$ 400,000	75%	$ 300,000
13	0.5%	Air Release Valve	6	EA	4,000.00	$ 24,000	75%	$ 18,000
14	0.0%		0		-	$ -	75%	$ -
15	0.0%		0		-	$ -	75%	$ -
16	0.0%		0		-	$ -	75%	$ -
17	0.0%		0		-	$ -	75%	$ -
18	0.0%		0		-	$ -	75%	$ -
19	0.0%		0		-	$ -	75%	$ -
20	0.0%		0		-	$ -	75%	$ -
21	0.0%		0		-	$ -	75%	$ -
22	0.0%		0		-	$ -	75%	$ -
23	0.0%		0		-	$ -	75%	$ -
24	0.0%		0		-	$ -	75%	$ -
25	0.0%		0		-	$ -	75%	$ -
26	0.0%		0		-	$ -	75%	$ -
		Construction Sub-Total				$ 4,544,000	75%	$ 3,408,000
	10.0%	**Contingency**				$ 454,400	75%	$ 340,800
	83.0%	**Construction Total**				$ 4,998,400	75%	$ 3,748,800
		Engineering Costs						
27	2.5%	Preliminary Design	1	NA	125,000.00	$ 125,000	75%	$ 93,750
28	4.8%	Final Design	1	NA	238,000.00	$ 238,000	75%	$ 178,500
29	0.2%	Bidding / Negotiations	1	NA	12,000.00	$ 12,000	75%	$ 9,000
30	2.0%	Construction Contract Management	1	NA	100,000.00	$ 100,000	75%	$ 75,000
31	6.0%	Project Inspection	1	NA	300,000.00	$ 300,000	75%	$ 225,000
32	1.2%	Post-Construction / Warranty	1	NA	60,000.00	$ 60,000	75%	$ 45,000
32	0.0%					$ -	75%	$ -
33	0.0%				-	$ -	75%	$ -
	13.9%	**Engineering Total**				$ 835,000	75%	$ 626,250
		Other Eligible Costs						
34	2.0%	Miscellaneous	1	NA	120,000.00	$ 120,000	75%	$ 90,000
35	0.8%	Permit Fees	1	NA	50,000.00	$ 50,000	75%	$ 37,500
36	0.3%	Mitigation Required By Law	1	NA	20,000.00	$ 20,000	75%	$ 15,000
37	0.0%		1		-	$ -	75%	$ -
38	0.0%		1		-	$ -	75%	$ -
39	0.0%		1		-	$ -	75%	$ -
40	0.0%		1		-	$ -	75%	$ -
41	0.0%		1		-	$ -	75%	$ -
	3.2%	**Other Eligible Total**				$ 190,000	75%	$ 142,500
		In-eligible Costs						
42	0.0%		1		-	$ -	0%	$ -
43	0.0%		1		-	$ -	0%	$ -
44	0.0%		1		-	$ -	0%	$ -
45	0.0%		1		-	$ -	0%	$ -
46	0.0%		1		-	$ -	0%	$ -
47	0.0%		1		-	$ -	0%	$ -
48	0.0%		1		-	$ -	0%	$ -
49	0.0%		1		-	$ -	0%	$ -
					-			
	0.0%	**Other Ineligible Total**				$ -	0%	$ -
	100.0%				**Total**	$ 6,023,400		
					Eligible Total	$ 6,023,400	75%	$ 4,517,550
					Federal or State Funds That Supplant Costs	$ -		
					Eligible Cost Total	$ 6,023,400	75%	$ 4,517,550

* The Cost-share estimate is purely for planning and informational purposes only and does not, in any way, guarantee a financial commitment to any degree, from the State Water Commission.

Life Cycle Cost Analysis Review

Sponsor: City of Riverdale
Project Title: Raw Water Transmission Line and Gate Valve Replacement **Date:** January 17, 2022

Explanation of Alternatives:

Replace Raw Water Supply Line and Gate Valves - Remove an existing heated 10" cast iron line and replace it with a new heated 10" stainless steel raw water line.
Do Nothing - This would not be feasible because the raw water supply line is the only source of water for the Riverdale water treatment plant which serves over 1,200 people.
Move Raw Water Lines and Replace Gate Valves – Replace the existing line with a line below the dam rather than through the dam.
Install New Raw Water Intake - Install a new raw water intake to the northwest of town.

Inputs:

	Replace Raw Water Supply Line and Gate Valves	Do Nothing	Preferred - Move Raw Water Lines and Replace Gate Valves	Install New Raw Water Intake
Users Served	650			
Construction Cost	$5,470,900	$0	$6,024,000	$10,470,200
Annual O & M	$5,000	$50,000	$5,000	$25,000

Details:

Replace Raw Water Supply Line and Gate Valves – Replace existing heated 10" cast iron line with heated 10" stainless steel raw water line underneath the Garrison Dam Spillway bridge deck. This alernative would replace the inoperable gate valves in Riverdale.

Do Nothing - This would not be feasible because the raw water supply line is the only source of water for the Riverdale water treatment plant which serves over 1,200 people. It also would leave the city susceptible to a watermain break. Annual emergency repair costs are estimated and could be significantly higher. This alternative would not include replacing the inoperable gate valves in Riverdale.

Move Raw Water Lines and Replace Gate Valves - Replace the existing line with a line below the dam rather than through the dam. The line would run from the existing line on Highway 200, to the south, under the spillway channel before heading back up to the water treatment plant on County Highway 16. This alternative would also include replacing the gate valves in Riverdale.

Install New Raw Water Intake - Install a new raw water intake to the northwest of Riverdale. This raw water line would feed the Riverdale water treatment plant in place of the current line. The major cost difference is the $4.1 million caisson intake structure. This alternative would negate future intake work on, in, or withing the dam facility. This alternative would also include replacing the gate valves in Riverdale.

Model Function:

The economic model appears to have functioned properly. The results are deemed to be reliable and repeatable with the inputs provided by the project sponsor.

LCCA Model Results:

Scenario Analysis - Present Value Life Cycle Cost Summary

Present Value	Replace Raw Water Supply Line and Gate Valves	Do Nothing	Preferred - Move Raw Water Lines and Replace Gate Valves	Install New Raw Water Intake
Capital Costs	$5,471,000	$0	$6,024,000	$10,470,000
O&M	$130,000	$1,360,000	$130,000	$653,000
Repair, Rehab, Replacement	$92,000	$0	$627,000	$2,472,000
Salvage Value	$12,000	$0	$122,000	$625,000
Total PVC	**$5,681,000**	**$1,360,000**	**$6,659,000**	**$12,970,000**
PV Cost Per User	$8,740	$2,092	$10,245	$19,954

Current Water Rate (Cost Per 5000g)		**$50**			
Comparable Water Rate		**$47**			
Total Municipal Service Users		650	650	650	650
Cost-Share Percent		60%	60%	60%	60%
	Local Share	$2,188,400	$0	$2,409,600	$4,188,000
	Other Funding	$0	$0	$0	$0
	Total Local	$2,188,400	$0	$2,409,600	$4,188,000
Payment Per User With Cost-Share		**$17.03**	**$0.00**	**$18.75**	**$32.59**
	Local Share	$5,471,000	$0	$6,024,000	$10,470,000
	Other Funding	$0	$0	$0	$0
	Total Local	$5,471,000	$0	$6,024,000	$10,470,000
Payment Per User Without Cost-Share		**$42.58**	**$0.00**	**$46.88**	**$81.49**

Explanation of Results:

Moving the Raw Water Lines is preferred by the project sponsor. This project has several viable alternatives that were discussed in greater detail. The Do Nothing Altetrnative is by far the least cost alternative though it will not address the potential freezing of water supply lines. The option that moves the raw water lines below the dam is not an apples to apples comparison since it would replace the lines all the way around to the intake for an additional $553,000 in up front capital cost ($978,000 NPV). However, the O&M on this alternative includes all the pipe and the bridge alternative only includes O&M on the bridge section and not the rest of the line within the dam. Moving the line alternative would also reduce the need for heating the pipeline. The sponsors are requesting 75% cost-share, however to be consistent with previous commission decisions 60% cost-share was used for these comparisons. The present value cost of the preferred alternative is $6,659,000, with a per user water rate impact of $18.75 per user per month with state participation and $46.88 without state cost-share.

	Year		Annual Population Growth Rate	Average Annual Population Increase/Decrease
ND Dept. of Commerce	2010	2020		
Population & Trends	205	224	0.9%	2

Other Comments:

The project sponsors and their consultants worked with staff to address additional alternatives as requested by this Commission and the above LCCA reflects the constructive discussions and treatment of alternatives from that process. The preferred alternative cost is $553,000 more than solely addressing the bridge section. However, the existing pipe in the dam is aging and the cost of a single replacement and avoided future work within the dam itself is alleiviated. There are significant long term efficiencies in the application of the preferred alternative.

LCCA Version Version 1.2021-6.29

CAPITAL IMPROVEMENT PLAN (CIP)

System: City of Riverdale Water System
Date: 08/03/21

Population: 1,270
Users: 650

ASSET	UNITS	UNIT COST	QTY	RESERVE REPLACEMENT %	REPLACEMENT COST	AVERAGE LIFE (YRS)	ANNUAL RESERVE	MONTHLY RESERVE	MONTHLY RESERVE PER CUSTOMER
Existing Project CIP Costs									
N/A - City does not have existing CIP									
SUBTOTAL Existing CIP Costs					$0		$0	$0	$0.00
New Project CIP Costs									
Raw Water Line Replacement	LS	$5,013,400.00	1	75%	$3,760,050	50	$75,201	$6,267	$9.64
Gate Valve Replacement	LS	$1,010,000.00	1	75%	$757,500	50	$15,150	$1,263	$1.94
SUBTOTAL New CIP Costs					$4,517,550		$90,351	$7,529	$11.58
TOTAL Existing and New Project CIP					$4,517,550		$90,351	$7,529	$11.58

	TOTAL RESERVES	ANNUAL RESERVE	MONTHLY RESERVE	MONTHLY RESERVE PER CUSTOMER
Current:	$120,000	$0	$0.00	$0.00
Adjustment:	$4,397,550	$90,351	$7,529	$11.58

	Monthly Ave Gal/user	Monthly $/kgal
Required	5,000	$2.32
Current	5,000	$0.00
Adjustment	5,000	$2.32

Report Prepared by (Title): Grant Dockter (Project Engineer)
Date: 8/3/2021

Notes:

July 30, 2021

John Paczkowski, P.E.
State Engineer
North Dakota State Water Commission
900 East Boulevard Avenue, Dept. 770
Bismarck, North Dakota 58105-0850

Copy via email: Original US Mail

Subject: Operation and Maintenance/Territorial Service Area Conflicts
Raw Water Supply and Gate Valve Improvements
Riverdale, ND

The operation and maintenance of the raw water supply line and gate valves will be sustainable by the City of Riverdale. The City has a Public Works Superintendent in charge of the operation and maintenance of the water system. The Superintendent is responsible to the City Commission, who sets rates and provides for the fiscal responsibility for the system. The City will continue to monitor and maintain the system in the future. The City uses a water system budget for the financial obligations for the system.

The entire project will be installed within the existing limits of McLean Sheridan Rural Water or the City of Riverdale. No service area conflicts are expected.

Sincerely,

Jerry Orth
Mayor

Water Development Plan: None
Plan Priority: N/A

DWR Date Received: Updated 01/10/2022

H7

NORTH Dakota | Water Commission
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WATER COMMISSION COST-SHARE APPLICATION CHECKLIST

(This checklist must be attached to all applications for Water Commission cost-share assistance.)

Project sponsors requesting cost-share assistance from the North Dakota Water Commission are required to submit completed applications, including all supplemental materials, at least 45 days in advance of meetings. Incomplete applications or those submitted after the 45 day deadline will not appear on the next meeting agenda. Project sponsors, or their authorized representative, must verify that the following information is included as part of their application package for cost-share assistance.

Project Name:	Sponsoring Entity:
Consolidated Sewer & Water Imp. District No. 59	City of Valley City

Initial If Included, or "X" If Not	SWC Cost-Share Application Materials ***Required For All Applications**
GC	*Cost-Share Application Form (SFN 60439)
GC	*Project Specific Map (Including an inset map of location within state.) See Examples
GC	*Detailed Project Costs SFN 61801 (complete fillable worksheet)
X	Approved Drainage Permit (Rural Flood Control Only)
X	Results Of Positive Assessment Vote (Rural Flood Control Only)[1]
X	Acquisition Plan (Flood Recovery Property Acquisition Program Only)
X	Proof of HMGP Funding Ineligibility (Flood Recovery Property Acquisition Program Only)
GC	Plans & Specifications For Bidding Project Construction (Construction Requests Only)
X	Economic Analysis Worksheet (Flood Control & Water Conveyance Construction Only)
GC	Life Cycle Cost Analysis Worksheet (Water Supply Construction Only)
GC	Capital Improvement Plan SFN 61938 (Water Supply Construction Only)

[1] *A pre-application process is allowed for assessment projects. (See Project Funding Policy, Procedure, and General Requirements)*

I hereby certify that the information contained in this application for cost-share assistance is true and accurate, and all required materials have been provided with this application. I have read and understand the Water Commission's requirements for a completed application, and further understand that the submission of an incomplete application package will not be considered by the Water Commission for cost-share assistance.

Gwen Crawford	G Crawford	6/28/21
Project Sponsor (Printed Name)	Project Sponsor (Signature)	Date

PLEASE NOTE

The cost-share application (SFN 60439); Life Cycle Cost Analysis Worksheet; Economic Analysis Worksheet; Project Funding Policy, Procedure, and General Requirements; and future meeting dates are available via the Water Commission website at swc.nd.gov. If you have questions, please call 701-328-4989 or email swccostshare@nd.gov.

COST-SHARE REQUEST

NORTH DAKOTA WATER COMMISSION
PLANNING DIVISION
SFN 60439 (5/2021)

This form is to be filled out by the project or program sponsor with Water Commission staff assistance as needed. Applications for cost-share are accepted at any time. However, applications received less than 45 days before a Water Commission meeting will be held for consideration at the next scheduled meeting.

Please answer the following questions as completely as possible. Supporting documents such as maps, detailed cost estimates, and engineering reports should be attached to this form. If additional space is required, please use extra sheets as necessary.

For information regarding cost-share program eligibility see the *Water Commission Cost-Share Policy, Procedure, and General Requirements* – available upon request or at www.swc.nd.gov.

Project, Program, Or Study Name
Consolidated Sanitary Sewer and Water Main Improvement District No. 59

Sponsor(s)
City of Valley City

County	City	Township/Range/Section
Barnes	Valley City	

Description Of Request ☒ New ☐ Updated (previously submitted) ☐ Pre-Construction ☒ Construction

If Study, What Type ☐ Water Supply ☐ Hydrologic ☐ Floodplain Mgmt. ☐ Feasibility ☐ Other

If Project/Program

☐ Bank Stabilization	☐ Irrigation	☐ Recreation	☐ Snagging & Clearing
☐ Dam Safety/EAP	☐ Multi-Purpose	☐ Ring Dike Program	☐ Water Retention
☐ FEMA Levee Program	☒ Municipal Water Supply	☐ Rural Flood Control	
☐ Flood Protection Program	☐ Property Acquisition Program	☐ Rural Water Supply	

Jurisdictions/Stakeholders Involved In This Project
City of Valley City

Description Of Problem Or Need And How The Project Provides A Solution
Valley Plains is proposing to construct a new facility in the southeast quadrant of Exit 294 on Interstate 94. Currently the site does not have existing sanitary sewer or water main. The proposed project would extend these services to the site while providing capacity for additional development along the south side of Interstate 94.

Level Of Study Completed
N/A

Describe Potential Obstacles To Implementation

Land Acquisition
Utility and Construction Easements - Coordination is on-going

Permits
Utility Occupancy Application and Permit - Coordination is on-going

Funding
N/A

Local Opposition
N/A

Environmental Concerns
N/A

Other
N/A

Funding Timeline (carefully consider when SWC cost-share will be needed)

Source	Total Cost	2021-2023 7/1/21-6/30/23	2023-2025 7/1/23-6/30/25	Beyond 7/1/25
Federal	$0.00	$	$	$
Water Commission	$~~165,400.00~~ 222,600.00	$~~165,400.00~~	$	$
Other State	$0.00	$	$	$
Local	$~~110,300.00~~ 148,321.00	$~~110,300.00~~	$	$
Total	$~~275,700.00~~ 370,921.00	$~~275,700.00~~	$ 0.00	$ 0.00

Funding Detail (provide names and amounts from all potential funding sources from the table above.)

Source	Amount	Grant Or Loan	Term	Interest
	$			%
	$			%
	$			%
	$			%

Explain Timelines For All Phases And Their Current Status
The design is complete. The project is anticipated to be bid summer/fall of 2021. The project will be completed in 2022.

Study (Month/Year)	Design (Month/Year)	Bid (Month/Year)
N/A	July/2021	August-October/2021

Construction Start (Month/Year)	Construction Completion (Month/Year)
April/2022	August/2022

Has Economic Analysis Been Completed?	☐ Yes	☐ No	☐ Ongoing	☒ Not Applicable	
Has Life Cycle Cost Analysis Been Completed?	☒ Yes	☐ No	☐ Ongoing	☐ Not Applicable	
Has Feasibility Study Been Completed?	☐ Yes	☐ No	☐ Ongoing	☒ Not Applicable	
Has Engineering Design Been Completed?	☒ Yes	☐ No	☐ Ongoing	☐ Not Applicable	
Have Land Or Easements Been Acquired?	☐ Yes	☐ No	☒ Ongoing	☐ Not Applicable	
Have Assessment Districts Been Formed?	☒ Yes	☐ No	☐ Ongoing	☐ Not Applicable	If Yes, (Date)? June 15, 2021
Are Connections For New Rural Customers Located Within The Extra-Territorial Jurisdiction Of A Municipality?	☐ Yes	☒ No			

Have You Applied For Any Federal Permits?	☐ Yes	☐ No	☒ Not Applicable
Have You Been Approved For Any Federal Permits?	☐ Yes	☐ No	☒ Not Applicable

Type	Number

If Yes, Please Explain

Have You Applied For Any State Permits?	☐ Yes	☒ No	☐ Not Applicable
Have You Been Approved For Any State Permits?	☐ Yes	☒ No	☐ Not Applicable

Type	Number
Utility Occupancy Application and Permit	SFN 7995

If Yes, Please Explain

A Utility Occupancy Application and Permit is required through the NDDOT for the crossing of Interstate 94. Coordination is ongoing.

Have You Applied For Any Local Permits?	☐ Yes	☐ No	☒ Not Applicable
Have You Been Approved For Any Local Permits?	☐ Yes	☐ No	☒ Not Applicable

Type	Number

If Yes, Please Explain

Submitted By Gwen Crawford			Date June 28, 2021
Address PO Box 390	City Valley City	State ND	ZIP Code 58072

Sponsor's Telephone Number (701)845-8120	Sponsor's Email Address gcrawford@valleycity.us
Engineer's Name Chad Petersen	Engineer's Telephone Number (701)845-9446
Engineer's Company KLJ Engineering LLC	Engineer's Email Address chad.petersen@kljeng.com

I Certify That, To The Best Of My Knowledge, The Provided Information Is True And Accurate.

Signature GCrawford	Date 6/28/21

E-MAIL TO:
swccostshare@nd.gov

OR

Submit Via Email

City Hall
254 2nd Ave NE
PO Box 390
Valley City, ND 58072-0390

Phone: 701-845-1700
Fax: 701-845-4588
www.valleycity.us

June 28, 2021

North Dakota State Water Commission
ATTN: Cost-Share Program
900 E Boulevard Ave
Bismarck, ND 58505-0850

Re: City of Valley City
Consolidated Sewer & Water District 59
Cost-Share Request

Dear State Water Commission:

The City of Valley City has received a request to extend sanitary sewer and water main to the new Nextera Addition in southeast Valley City. The proposed site has recently been annexed into the City and has been platted. Currently, the proposed site does not have sanitary sewer or water service.

The City of Valley City is requesting funding to extend approximately 1,100 feet of watermain located in the southeast corner of the City (See attached location map). The project consists of installing 12-inch watermains, valves, and hydrants.

The total estimated cost for the sanitary sewer and water main extension is ~~$728,265~~. The estimated construction cost for water main improvements is approximately $371,000. The current funding request includes monies for construction and construction engineering. Attached is a preliminary opinion of cost for the water main and the overall construction plans. The City is requesting 60% cost-share or $222,600 (State) in grant for construction and engineering of the water main extension.

Below is a summary of the cost-share request for construction of water main improvements:

Water Main Extension		*Total*		*State*		*Local*	
Construction (60%)	$322,421	$ ~~*250,700*~~	$193,453	~~*150,420*~~		$ ~~*100,280*~~	$128,968
Engineering (60%)	$ 48,500	$ ~~*25,000*~~	$ 29,100	~~*15,000*~~		$ ~~*10,000*~~	$ 19,400
Total	$370,921	$ ~~*275,700*~~	$222,553	~~*165,420*~~		$ ~~*110,280*~~	$148,368

If you have any questions or require additional information, please contact me at 701-845-1700.

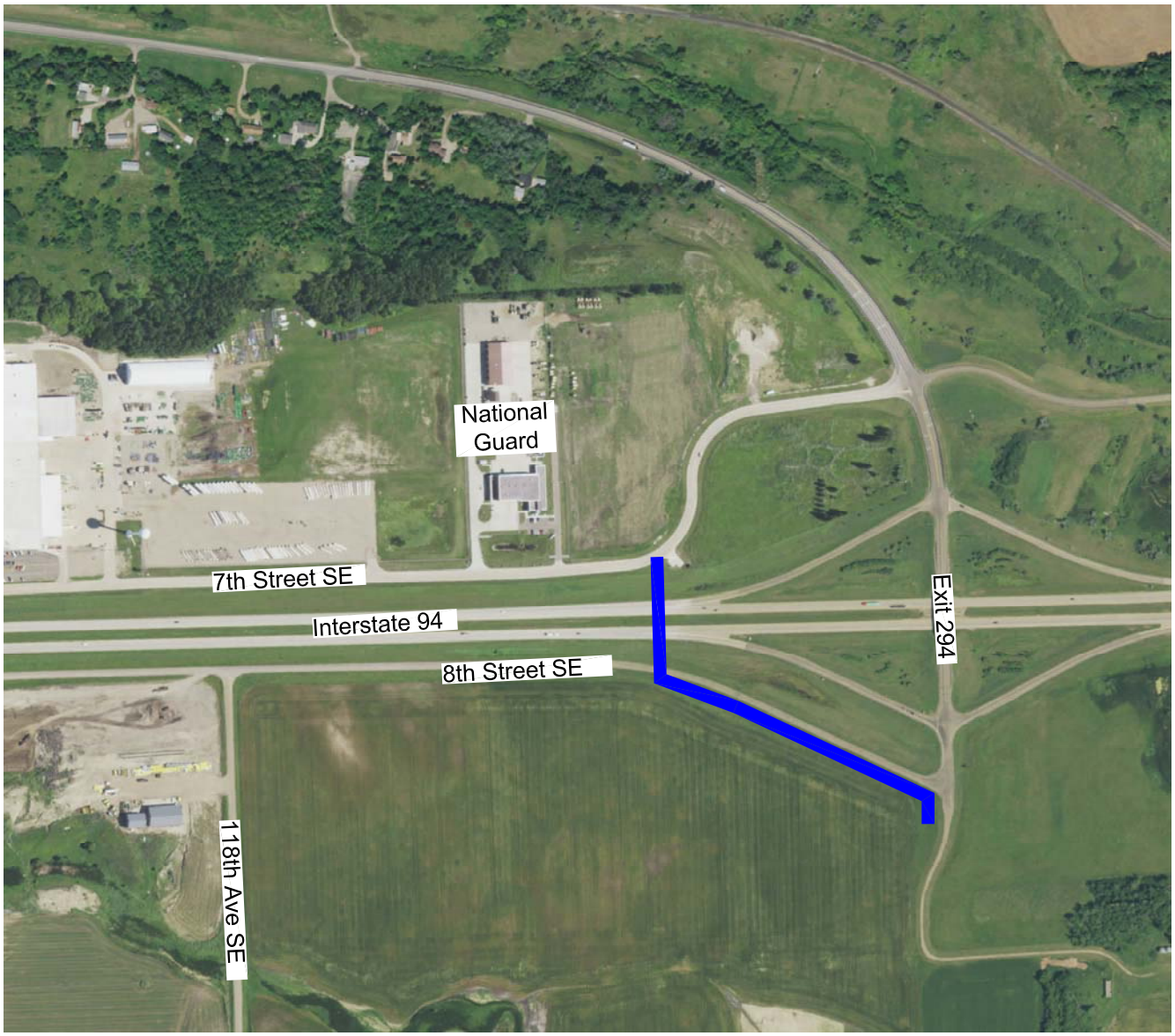
Sincerely,

City of Valley City

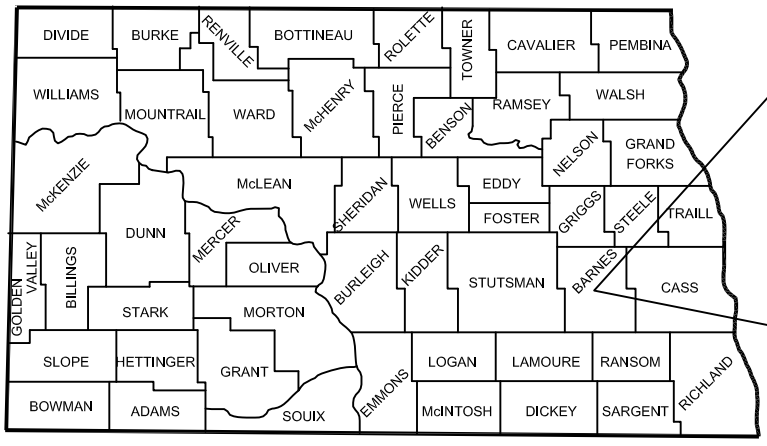
Gwen Crawford
City Administrator

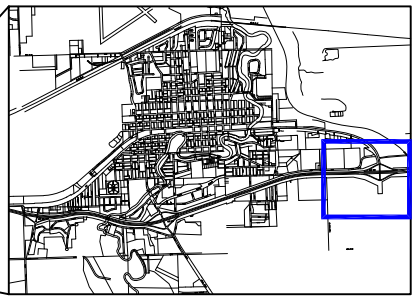
Attachments: Water Commission Cost-Share Application Checklist and Application Materials

CONSOLIDATED SEWER & WATER DISTRICT 59



Consolidated Sewer & Water District 59





Valley City, ND

N

KLJ

DELINEATION OF COSTS
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
PLANNING AND EDUCATION
SFN 61801 (10/2021)

DWR Date Received : January 10, 2022

Project:	Consolidated Sewer & Water District No. 59 (Water Costs)
Sponsor:	City of Valley City
Contact:	Gwen Crawford, City Administrator
Phone:	701_845_8120
Engineer:	Chad Petersen, KLJ Engineering LLC
Phone:	701_845_9446

Total Cost :	$ 371,000
Ineligible Cost :	$ -
Eligible Cost :	$ 371,000
Local Cost :	$ 148,400

Date: January 10, 2022

	Cost-Share $
	$ 222,600
Preconstruction :	$ -
Construction :	$ 222,600

Project Type:	**Cost-share %**
Municipal Water Expansion/Improvement	60%

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share $ *
		Construction Costs						
1	6.2%	Mobilization	0.4	LS	50,000.00	$ 20,000	60%	$ 12,000
2	0.6%	Storm Water Management	0.4	LS	5,000.00	$ 2,000	60%	$ 1,200
3	0.9%	Traffic Control	0.4	LS	7,500.00	$ 3,000	60%	$ 1,800
4	0.9%	Testing Allowance	0.4	LS	7,500.00	$ 3,000	60%	$ 1,800
5	1.2%	ECB Type 2	470	SY	8.00	$ 3,760	60%	$ 2,256
6	0.5%	Fiber Rolls 12 IN	500	LF	3.50	$ 1,750	60%	$ 1,050
7	0.1%	Removal of Curb & Gutter	30	SY	15.00	$ 450	60%	$ 270
8	20.8%	Directional Drill - 14" HDPE	560	LF	120.00	$ 67,200	60%	$ 40,320
9	1.4%	Connection to Existing Line	1	LS	4,500.00	$ 4,500	60%	$ 2,700
10	28.0%	Water Main 12 in	1130	LF	80.00	$ 90,400	60%	$ 54,240
11	0.7%	Water Main 6 in	40	LF	60.00	$ 2,400	60%	$ 1,440
12	3.4%	Hydrant	2	EA	5,500.00	$ 11,000	60%	$ 6,600
13	8.4%	Gate Valve	6	EA	4,500.00	$ 27,000	60%	$ 16,200
14	0.3%	Gravel	20	TON	45.00	$ 900	60%	$ 540
15	1.4%	Concrete	23	SY	200.00	$ 4,600	60%	$ 2,760
16	0.4%	Curb and Gutter	30	LF	45.00	$ 1,350	60%	$ 810
17	0.9%	Fence Remove & Reset	60	LF	50.00	$ 3,000	60%	$ 1,800
18	10.0%	Earthwork	1290	CY	25.00	$ 32,250	60%	$ 19,350
19	3.6%	Seeding	7700	SY	1.50	$ 11,550	60%	$ 6,930
20	0.9%	Other Items Provided By Contractor	1	LS	3,000.00	$ 3,000	60%	$ 1,800
21	0.0%		0		-	$ -	60%	$ -
22	0.0%		0		-	$ -	60%	$ -
23	0.0%		0		-	$ -	60%	$ -
24	0.0%		0		-	$ -	60%	$ -
25	0.0%		0		-	$ -	60%	$ -
26	0.0%		0		-	$ -	60%	$ -
		Construction Sub-Total				$ 293,110	60%	$ 175,866
	10.0%	**Contingency**				$ 29,390	60%	$ 17,634
	86.9%	**Construction Total**				$ 322,500	60%	$ 193,500
		Preconstruction Costs						
27	0.0%		0		-	$ -	60%	$ -
28	0.0%		0		-	$ -	60%	$ -
29	0.0%		0		-	$ -	60%	$ -
30	0.0%		0		-	$ -	60%	$ -
31	0.0%		0		-	$ -	60%	$ -
	0.0%	**Preconstruction Total**				$ -	60%	$ -
		Construction Engineering Costs						
32	15.0%	Project Inspection	1	NA	48,500.00	$ 48,500	60%	$ 29,100
33	0.0%		0		-	$ -	60%	$ -
34	0.0%		0		-	$ -	60%	$ -
35	0.0%		0		-	$ -	60%	$ -
36	0.0%		0		-	$ -	60%	$ -
	13.1%	**Construction Engineering Total**				$ 48,500	60%	$ 29,100
		Other Eligible Costs						
37	0.0%		0		-	$ -	60%	$ -
38	0.0%		0		-	$ -	60%	$ -
39	0.0%		0		-	$ -	60%	$ -
40	0.0%		0		-	$ -	60%	$ -
41	0.0%		0		-	$ -	60%	$ -
	0.0%	**Other Eligible Total**				$ -	60%	$ -
		In-eligible Costs						
42	0.0%		0		-	$ -	0%	$ -
43	0.0%		0		-	$ -	0%	$ -
44	0.0%		0		-	$ -	0%	$ -
45	0.0%		0		-	$ -	0%	$ -
	0.0%	**Other Ineligible Total**				$ -	0%	$ -
	100.0%	**Total**				$ 371,000		
		Eligible Total				$ 371,000	60%	$ 222,600
		Federal or State Funds That Supplant Costs				$ -		
		Eligible Cost Total				$ 371,000	60%	$ 222,600

* The Cost-share estimate is purely for planning and informational purposes only and does not, in any way, guarantee a financial commitment to any degree, from the State Water Commission.

Life Cycle Cost Analysis Review

Sponsor: City of Valley City
Project Title: Valley Plains Utility Extension **Date:** January 17, 2022

Explanation of Alternatives:

Waterline Extension PVC (Preferred) - Extend waterline to newly annexed land for development.

Waterline Extension (Ductile Iron) - Extend waterline to newly annexed land for development.

Do Nothing – Do Nothing

Inputs:

	Waterline Extension PVC (Preferred)	Waterline Extension (Ductile Iron)	Do Nothing	
Users Served	35			
Construction Cost	$370,900	$482,400	$0	
Annual O & M	$500	$500	$0	

Details:

Waterline Extension PVC (Preferred) - Extend waterline to newly annexed land for development using PVC pipe.

Waterline Extension (Ductile Iron) - Extend waterline to newly annexed land for development using ductile iron pipe.

Do Nothing – Do Nothing

Model Function:

The economic model appears to have functioned properly. The results are deemed to be reliable and repeatable with the inputs provided by the project sponsor.

LCCA Model Results:

Scenario Analysis - Present Value Life Cycle Cost Summary

Present Value	Waterline Extension PVC (Preferred)	Waterline Extension (Ductile Iron)	Do Nothing	
Capital Costs	$371,000	$482,000	$0	
O&M	$0	$0	$0	
Repair, Rehab, Replacement	$15,000	$15,000	$0	
Salvage Value	$4,000	$4,000	$0	
Total PVC	**$382,000**	$493,000	$0	
PV Cost Per User	**$10,914**	$14,086	$0	

Current Water Rate (Cost Per 5000g)		**$48**			
Comparable Water Rate		**$47**			
Total Municipal Service Users		35	35	-	
Cost-Share Percent		60%	60%	60%	
	Local Share	$148,400	$192,800	$0	
	Other Funding	$0	$0	$0	
	Total Local	$148,400	$192,800	$0	
Payment Per User With Cost-Share		**$21.45**	$27.87	$0.00	
	Local Share	$371,000	$482,000	$0	
	Other Funding	$0	$0	$0	
	Total Local	$371,000	$482,000	$0	
Payment Per User Without Cost-Share		**$53.62**	$69.67	$0.00	

Explanation of Results:

The net present value of the preferred alternative of Waterline Extension PVC is $382,000 which is $111,000 less than the Ductile Iron alternative. The present value cost per user of the preferred alternative is $10,914 which equates to $21.45 per user per month with SWC cost-share participation and $53.62 without SWC participation.

	Year		Annual Population Growth Rate	Average Annual Population Increase/Decrease
ND Dept. of Commerce	2010	2020		
Population & Trends	6,585	6,300	-0.4%	-29

Other Comments:

LCCA Version Version 1.2021-7.26

Infrastructure Renewal & Replacement Fund 290 Activity Report - 20 Year Plan Beginning in 2007

Year-10 Actual	Year-12 Actual	Actual	Estimated	Estimated	Estimated	Year-17 Estimated	Estimated
2017	2018	2019	2020	2021	2022	2023	2024
270,341	262,079	263,304	264,060	262,000	262,000	262,000	262,000
88,108	86,703	86,453	85,830	86,000	86,000	86,000	86,000
41,447	42,425	40,735	34,521	33,000	33,000	33,000	33,000
1,944	1,964	1,907	1,984	2,000	2,000	2,000	2,000
43,711	44,316	44,691	45,149	44,000	44,000	44,000	44,000
367,636	410,331	415,041	447,307	552,000	557,520	563,095	568,726
367,636	410,331	415,041	447,307	552,000	557,520	563,095	568,726
(483)							
1,180,340	1,258,149	1,267,172	1,326,157	1,531,000	1,542,040	1,553,190	1,564,452
1,509,194	837,642	1,156,779	1,243,611	886,110	1,716,610	2,199,233	3,552,423
(1,851,892)	(939,012)	(1,180,341)	(1,683,657)	(700,500)	(1,059,417)	(200,000)	(265,000)
837,642	**1,156,779**	**1,243,611**	**886,110**	**1,716,610**	**2,199,233**	**3,552,423**	**4,851,876**

	2020 Projects	Date Trf	Amount Trf
R&R $1,238,812 plus new topsoil and grass seed on corridor and 1st sealcoat project scheduled for 2023	5th Ave NW - Main St to 12th St NW (Reconstruction)	Updated 09/30/19	$1,900,000
	5th Ave NW - Main St to 12th St NW (Reconstruction)Wtrm 100	SWC 60% of cost share	-$290,200
	Sidewalk Replacement & Saw Cut	Trf 10/30/2020	$10,205
	Seal Coat Paving 121	Trf 8/31/2021	$63,652
	Permanent Flood Protection	Did not need for 2020	$0
	2020 Total		$1,683,657

2021 Projects	Date Trf	Amount Trf	
Permanent Flood Protection	Updated 12/15/21	$115,000	
Streetscape Phase II - Main Street & Central South	Updated 8.01.21	$404,233	
Mill & Overlay - 1 block by Senior Center	Trf 11/30/21 & Year End 2021	$48,133	
2nd Ave S - South of College Street	Trf 11/30/21	$8,134	
Mill Dam Erosion		$120,000	
2021 sidewalk replacements	Approved 1.19.21 Updated 12.01.21	$5,000	
7th Ave NW Inf	Updated 03.24.21	$0	03.24.21 2.25 milion from Prairie Dog Funds
2021 Total		$700,500	

2022 Projects	Date Trf	Amount Trf
Permanent Flood Protection		$200,000
Paving 122 Main Street Seal Coat	Updated 05/28/21 12/31/21	$9,417
6th St NW	Updated 01/7/22	$410,000
West Main Drainage	1/4/2022	$150,000
Hill Slide on N Side of West Main Street by Exit 290	Updated12/30/21	$140,000
12 St N & 8th Ave SW Mill & Overlay	1/10/2022	$150,000
2022 Total		$1,059,417

2023 Projects	Date Trf	Amount Trf
Permanent Flood Protection		$200,000
Total 2023		$200,000

2024 Projects	Date Trf	Amount Trf
Permanent Flood Protection		$200,000
Multi Use Path Reabilitation	1/6/2021	$65,000
Total 2024		$265,000

Water Development Plan: Yes - 2021
Plan Priority: Low

DWR Date Received : 1/10/22

H8

20433 - Watermain Improvement District No. 102 - 6th St NW (NW Quadrant Watermain Improvements)

Application Details

Funding Opportunity:	19214-2022 Infrastructure Request
Funding Opportunity Due Date:	Dec 31, 2022 3:00 PM
Program Area:	Funding for Infrastructure in ND - FIND
Status:	Under Review
Stage:	Final Application
Initial Submit Date:	Jan 10, 2022 1:49 PM
Initially Submitted By:	Avis Richter
Last Submit Date:	
Last Submitted By:	

Contact Information

Primary Contact Information

Active User*:	Yes
Type:	External User
Name:	Salutation Avis (First Name) Irene (Middle Name) Richter (Last Name)
Title:	Finance Director
Email*:	arichter@valleycity.us
Address*:	510 7th St NE
	Valley City (City) North Dakota (State/Province) 58072 (Postal Code/Zip)
Phone*:	(701) 840-8066 Ext. Phone
	###-###-####
Fax:	###-###-####
Comments:	

Organization Information

Status*:	Approved
Name*:	City of Valley City
Organization Type*:	Municipal Government
Tax Id:	45-6002171
Organization Website:	https://www.valleycity.us

Address*:	PO Box 390 254 2nd Ave NE Valley City North Dakota 58072-0390 City State/Province Postal Code/Zip
Phone*:	701-845-8121 Ext. ###-###-####
Fax:	###-###-####
Benefactor:	
Vendor ID:	
PeopleSoft Supplier ID:	
Comments:	
Location Code:	
SAM.gov Entity ID:	
SAM.gov Name:	
SAM.gov Entity ID Expiration Date:	
State Issued ID:	
Category #:	
Year Begin:	
Year Closed:	
NCES#:	
Restricted Indirect Cost Rate:	0.0%
Unrestricted Indirect Cost Rate:	0.0%

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study Name*:	Watermain Improvement District No. 102
Sponsor(s)*:	City of Valley City
County*:	Barnes
City*:	Valley City
Description of Request*:	New
If Study, What Type:	Water Supply
If Project/Program, What Type:	Municipal Water Supply

Jurisdictions/Stakeholders Involved*:

City of Valley City

Specific Needs Addressed By the Project, Program or Study*:

Insufficient fire protection, aging infrastructure and water quality.

Description of Problem or Need and How Project Addresses that Problem or Need.

Description of Problem*:

The project consists of 4 blocks of watermain replacement. The project will replace an undersized cast iron watermain and also an asbestos cement watermain with a PVC watermain. The existing services will also be replaced with new poly services. The project will increase fire flows and increase household water pressure and quality.

For this project,

Choose City, County or Water District*: City

What is the Current Estimated Population?*: 6575

For this project,

What is the Benefited Population?*: 100

Has Feasibility Study Been Completed?*: No

Has Engineering Design Been Completed?*: Yes

Have Assessment Districts Been Formed?*: Ongoing

Have Land or Easements Been Acquired?*: No

Has Sediment Analysis For Reconstruction Of An Existing Drain Been Completed?*: N/A

Extraterritorial Jurisdiction?*: No

Have You Applied For Any Federal Permits?*: No

If Yes or Ongoing, Please Explain (include type/number):

Have You Applied for any State Permits?*: No

If Yes or Ongoing, Please Explain (include type/number):

Have You Applied for any Local Permits?*: No

If Yes or Ongoing, Please Explain (include type/number):

Briefly explain the level of review the Project/Program/Study has undergone.

Level Review*:

The proposed watermain improvement project is scheduled to be completed at the same time as a street reconstruction project. The street reconstruction project is funded through the NDDOT and project development follows the NDDOT process for environmental clearance and plan development. The watermain work was included in this clearance and review process.

Do You Expect Any Obstacles To Implementation (i.e. problems with land acquisition, permits, funding, local opposition, environmental concerns, etc.)?

Obstacles*: No

Have you received, or do you anticipate receiving federal funding?

Federal Funding*: No

Implementation Timelines

Study*: 07/2021
Month/Year (00/0000)

Design*: 01/2022
Month/Year (00/0000)

Bid*: 03/2022
Month/Year (00/0000)

Construction Start*: 05/2022
Month/Year (00/0000)

Construction Completion*: 09/2022
Month/Year (00/0000)

Explain Additional Timeline Issues*:

Throughout the 2021 construction season and going into 2022, we have seen and heard delays in the shipping in project materials. The proposed project will be bid in March 2022. Timely award of the project and review of the shop drawings will be necessary to ensure and an early and timely completion of this project.

Certification

Submitted by*: Gwen Crawford 01/10/2022
First Name Last Name Date

Address*: 254 2nd Ave NE
Address Line 1

Address Line 2

Valley City North Dakota 58072-0390
City State Zip Code

Telephone Number*: 701-845-8120

Sponsor Email*: gcrawford@valleycity.us

Consulting Engineer*: Chad Petersen

Engineer Telephone Number*: 701-845-9446

Engineer Email*: chad.petersen@kljeng.com

This section needs to be completed by the project sponsor.
I certify that, to the best of my knowledge, the provided information is true and accurate.

Certify*: Yes

Authorized Individual*: Gwen Crawford 01/10/2022
First Name Last Name Date

Documentation

Documentation

Project Specific Map
(Including an inset map of location within state.)
CLICK HERE **to see examples.**

Project Specific Map*: Location_Map.pdf

Are You Seeking Department of Water Resources Cost-Share?*: Yes

CLICK HERE **for SFN 61801 Delineation of Costs.**

Delineation of Costs SFN 61801: sfn_61801_delineation_of_cost_VC_Water_102.xlsx

Type of Request: Construction

Signed Plans and Specifications For Bidding: Watermain_102_FinalPlans.pdf

Water Supply Projects?: Yes

CLICK HERE **for Life Cycle Cost Analysis Instructions.**

Life Cycle Cost Analysis: VC_Water_Main_Cons_Dist_6thSt_Life_Cycle_Cost_Analysis_Worksheet-1-10-22.xlsx

CLICK HERE **for SFN 61938 Capital Improvement Plan.**

Capital Improvement Plan SFN 61938: Capital_Imp_Plan_VC_1-10-22.pdf

Rural Flood Control?: No

Drain Reconstructions?: No

Flood Recovery Property Acquisition?:	No
Community Flood Control, Rural Flood Control, Bank Stabilization, or Snag & Clear Project With Total Cost of $200,000 or More?:	No
Feasibility/Engineering Study for the Proposed Project or Other Applicable Documents:	No
Engineering Total Cost of $35,000 or More?:	Yes
Engineering Selection Documentation:	RFQ_Process_6th_St_NW_Watermain_102.pdf

Sources

Funding Amount Requested

State FY1	State FY2	Beyond State FY2	Total Cost Source	Type	Term	Interest Rate
$252,036.00	$0.00	$0.00	$252,036.00		0.00	0.00
$252,036.00	**$0.00**	**$0.00**	**$252,036.00**			

Other Funding Sources

Type	Source	Grant or Loan	State FY1	State FY2	Beyond State FY2	Total Other Sources

No Data for Table

Valley City $168,000

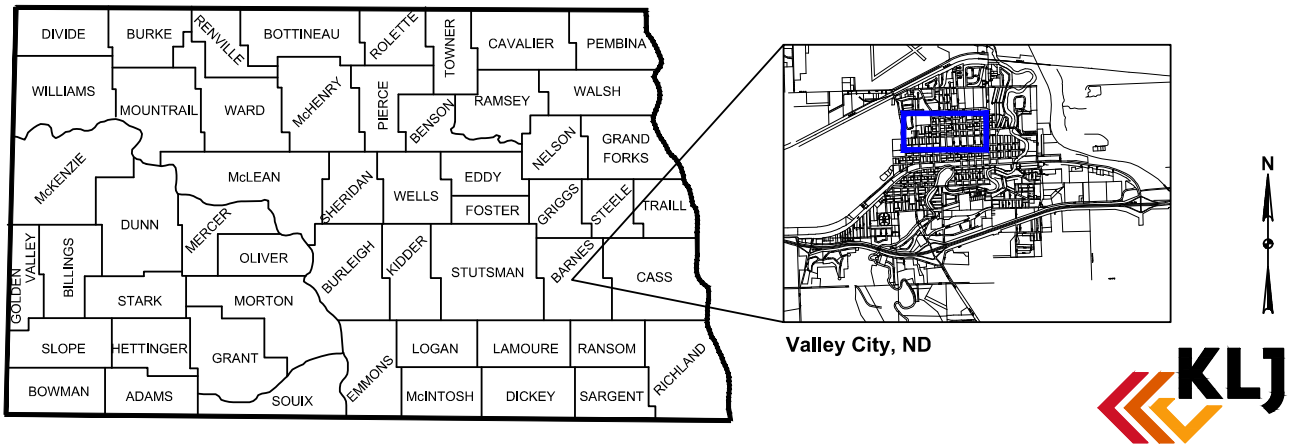
Project Total

Current Requested Amount:	$252,036.00	$252,000
Other Funding Sources:	$0.00	
Total Project:	$252,036.00	$420,000

DWR Date Received : 1/10/22

WATER IMPROVEMENT DISTRICT 102

Water Improvement District 102



DELINEATION OF COSTS
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
PLANNING AND EDUCATION
SFN 61801 (10/2021)

DWR Date Received : Month Day, Year

Project:	Watermain Improvement District No. 102
Sponsor:	City of Valley City
Contact:	Gwen Crawford, City Administrator
Phone:	701_845_8120
Engineer:	Chad Petersen, KLJ Engineering LLC
Phone:	701_845_9446

Total Cost :	$ 420,000
Ineligible Cost :	$ -
Eligible Cost :	$ 420,000
Local Cost :	$ 168,000

Date: January 10, 2021

Cost-Share $
$ 252,000

Preconstruction :	$ -
Construction :	$ 252,000

Project Type:	**Cost-share %**
Municipal Water Expansion/Improvement	60%

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share $ *
		Construction Costs						
1	0.7%	Contract Bond	0.18	LS	15,000.00	$ 2,700	60%	$ 1,620
2	7.4%	Mobilization	0.18	LS	150,000.00	$ 27,000	60%	$ 16,200
3	1.1%	Removal of Pipe All Types & Sizes	197	LF	20.00	$ 3,940	60%	$ 2,364
4	1.8%	8IN Non-Reinf Conc Pvmt CL AE-Dowel	45	SY	150.00	$ 6,750	60%	$ 4,050
5	5.6%	Fittings	1020	LBS	20.00	$ 20,400	60%	$ 12,240
6	1.1%	Remove Gate Valve & Box	4	EA	1,000.00	$ 4,000	60%	$ 2,400
7	11.3%	Gate Valve	11	EA	3,750.00	$ 41,250	60%	$ 24,750
8	4.9%	Hydrant	3	EA	6,000.00	$ 18,000	60%	$ 10,800
9	0.4%	Hydrant - Remove	3	EA	500.00	$ 1,500	60%	$ 900
10	7.8%	Water Service Line	1144	LF	25.00	$ 28,600	60%	$ 17,160
11	0.1%	Water Main 4 in	5	LF	100.00	$ 500	60%	$ 300
12	2.4%	Water Main 6 in	116	LF	75.00	$ 8,700	60%	$ 5,220
13	26.6%	Water Main 8 in	1517	LF	64.00	$ 97,088	60%	$ 58,253
14	2.5%	Water Main 12 in	109	LF	85.00	$ 9,265	60%	$ 5,559
15	15.3%	Water Service Connection 1IN	28	EA	2,000.00	$ 56,000	60%	$ 33,600
16	1.7%	Insulation Board	309	CF	20.00	$ 6,180	60%	$ 3,708
17	0.0%		0		-	$ -	60%	$ -
18	0.0%		0		-	$ -	60%	$ -
19	0.0%		0		-	$ -	60%	$ -
20	0.0%		0		-	$ -	60%	$ -
21	0.0%		0		-	$ -	60%	$ -
22	0.0%		0		-	$ -	60%	$ -
23	0.0%		0		-	$ -	60%	$ -
24	0.0%		0		-	$ -	60%	$ -
25	0.0%		0		-	$ -	60%	$ -
26	0.0%		0		-	$ -	60%	$ -
		Construction Sub-Total				$ 331,873	60%	$ 199,124
	10.0%	**Contingency**				$ 33,127	60%	$ 19,876
	86.9%	**Construction Total**				$ 365,000	60%	$ 219,000
		Preconstruction Costs						
27	0.0%					$ -	60%	$ -
28	0.0%		0		-	$ -	60%	$ -
29	0.0%		0		-	$ -	60%	$ -
30	0.0%		0		-	$ -	60%	$ -
31	0.0%		0		-	$ -	60%	$ -
	0.0%	**Preconstruction Total**				$ -	60%	$ -
		Construction Engineering Costs						
32	15.1%	Project Inspection	1	NA	55,000.00	$ 55,000	60%	$ 33,000
33	0.0%		0		-	$ -	60%	$ -
34	0.0%		0		-	$ -	60%	$ -
35	0.0%		0		-	$ -	60%	$ -
36	0.0%		0		-	$ -	60%	$ -
	13.1%	**Construction Engineering Total**				$ 55,000	60%	$ 33,000
		Other Eligible Costs						
37	0.0%					$ -	60%	$ -
38	0.0%		0		-	$ -	60%	$ -
39	0.0%		0		-	$ -	60%	$ -
40	0.0%		0		-	$ -	60%	$ -
41	0.0%		0		-	$ -	60%	$ -
	0.0%	**Other Eligible Total**				$ -	60%	$ -
		In-eligible Costs						
42	0.0%					$ -	0%	$ -
43	0.0%		0		-	$ -	0%	$ -
44	0.0%		0		-	$ -	0%	$ -
45	0.0%		0		-	$ -	0%	$ -
	0.0%	**Other Ineligible Total**				$ -	0%	$ -
	100.0%	**Total**				$ 420,000		
		Eligible Total				$ 420,000	60%	$ 252,000
		Federal or State Funds That Supplant Costs				$ -		
		Eligible Cost Total				$ 420,000	60%	$ 252,000

* The Cost-share estimate is purely for planning and informational purposes only and does not, in any way, guarantee a financial commitment to any degree, from the State Water Commission.

Life Cycle Cost Analysis Review

Sponsor: City of Valley City
Project Title: 6th Street NW Reconstruction **Date:** January 17, 2022

Explanation of Alternatives:

Waterline Replacement PVC (Preferred) - Replace existing cast iron and asbestos cement pipes.

Waterline Replacement (Ductile Iron) - Replace existing cast iron and asbestos cement pipes.

Pipe Bursting (PVC) - Not practical due to verticle and horizontal alignment.

Inputs:

	Waterline Replacement (PVC)	Waterline Replacement (Ductile Iron)	Pipe Bursting (PVC)	
Users Served	28			
Construction Cost	$419,900	$503,500	$0	
Annual O & M	$500	$500	$0	

Details:

Waterline Replacement PVC (Preferred) - Replace existing cast iron and asbestos cement pipes with PVC pipe.

Waterline Replacement (Ductile Iron) - Replace existing cast iron and asbestos cement pipes with new Ductile Iron Pipe.

Pipe Bursting (PVC) - This Alternative has been ruled out due to the main needing to be moved deeper and the horizon alignment needing to be changed.

Model Function:

The economic model appears to have functioned properly. The results are deemed to be reliable and repeatable with the inputs provided by the project sponsor.

LCCA Model Results:

Scenario Analysis - Present Value Life Cycle Cost Summary

Present Value	Waterline Replacement (PVC)	Waterline Replacement (Ductile Iron)	Pipe Bursting (PVC)	
Capital Costs	$420,000	$504,000	$0	
O&M	$0	$0	$0	
Repair, Rehab, Replacement	$43,000	$43,000	$0	
Salvage Value	$9,000	$9,000	$0	
Total PVC	**$454,000**	$538,000	$0	
PV Cost Per User	**$16,214**	$19,214	$0	

Current Water Rate (Cost Per 5000g)		**$48**			
Comparable Water Rate		**$47**			
Total Municipal Service Users		28	28	28	
Cost-Share Percent		60%	60%	60%	
	Local Share	$168,000	$201,600	$0	
	Other Funding	$0	$0	$0	
	Total Local	$168,000	$201,600	$0	
Payment Per User With Cost-Share		**$30.35**	$36.42	$0.00	
	Local Share	$420,000	$504,000	$0	
	Other Funding	$0	$0	$0	
	Total Local	$420,000	$504,000	$0	
Payment Per User Without Cost-Share		**$75.88**	$91.06	$0.00	

Explanation of Results:

The net present value of the preferred alternative of Waterline Replacement PVC is $454,000 which is $84,000 less than the Ductile Iron alternative. The present value cost per user of the preferred alternative is $16,214 which equates to $30.35 per user per month with SWC cost-share participation and $75.88 without SWC participation.

	Year		Annual Population Growth Rate	Average Annual Population Increase/Decrease
ND Dept. of Commerce	2010	2020		
Population & Trends	6,585	6,300	-0.4%	-29

Other Comments:

LCCA Version Version 1.2021-7.26

Infrastructure Renewal & Replacement Fund 290 Activity Report - 20 Year Plan Beginning in 2007

Year-10 Actual	Year-12 Actual	Actual	Estimated	Estimated	Estimated	Year-17 Estimated	Estimated
2017	2018	2019	2020	2021	2022	2023	2024
270,341	262,079	263,304	264,060	262,000	262,000	262,000	262,000
88,108	86,703	86,453	85,830	86,000	86,000	86,000	86,000
41,447	42,425	40,735	34,521	33,000	33,000	33,000	33,000
1,944	1,964	1,907	1,984	2,000	2,000	2,000	2,000
43,711	44,316	44,691	45,149	44,000	44,000	44,000	44,000
367,636	410,331	415,041	447,307	552,000	557,520	563,095	568,726
367,636	410,331	415,041	447,307	552,000	557,520	563,095	568,726
(483)							
1,180,340	1,258,149	1,267,172	1,326,157	1,531,000	1,542,040	1,553,190	1,564,452
1,509,194	837,642	1,156,779	1,243,611	886,110	1,716,610	2,199,233	3,552,423
(1,851,892)	(939,012)	(1,180,341)	(1,683,657)	(700,500)	(1,059,417)	(200,000)	(265,000)
837,642	**1,156,779**	**1,243,611**	**886,110**	**1,716,610**	**2,199,233**	**3,552,423**	**4,851,876**

	2020 Projects	Date Trf	Amount Trf
R&R $1,238,812 plus new topsoil and grass seed on corridor and 1st sealcoat project scheduled for 2023	5th Ave NW - Main St to 12th St NW (Reconstruction)	Updated 09/30/19	$1,900,000
	5th Ave NW - Main St to 12th St NW (Reconstruction)Wtrm 100	SWC 60% of cost share	-$290,200
	Sidewalk Replacement & Saw Cut	Trf 10/30/2020	$10,205
	Seal Coat Paving 121	Trf 8/31/2021	$63,652
	Permanent Flood Protection	Did not need for 2020	$0
	2020 Total		$1,683,657

2021 Projects	Date Trf	Amount Trf	
Permanent Flood Protection	Updated 12/15/21	$115,000	
Streetscape Phase II - Main Street & Central South	Updated 8.01.21	$404,233	
Mill & Overlay - 1 block by Senior Center	Trf 11/30/21 & Year End 2021	$48,133	
2nd Ave S - South of College Street	Trf 11/30/21	$8,134	
Mill Dam Erosion		$120,000	
2021 sidewalk replacements	Approved 1.19.21 Updated 12.01.21	$5,000	
7th Ave NW Inf	Updated 03.24.21	$0	03.24.21 2.25 milion from Prairie Dog Funds
2021 Total		$700,500	

2022 Projects	Date Trf	Amount Trf
Permanent Flood Protection		$200,000
Paving 122 Main Street Seal Coat	Updated 05/28/21 12/31/21	$9,417
6th St NW	Updated 01/7/22	$410,000
West Main Drainage	1/4/2022	$150,000
Hill Slide on N Side of West Main Street by Exit 290	Updated12/30/21	$140,000
12 St N & 8th Ave SW Mill & Overlay	1/10/2022	$150,000
2022 Total		$1,059,417

2023 Projects	Date Trf	Amount Trf
Permanent Flood Protection		$200,000
Total 2023		$200,000

2024 Projects	Date Trf	Amount Trf
Permanent Flood Protection		$200,000
Multi Use Path Reabilitation	1/6/2021	$65,000
Total 2024		$265,000

DWR Date Received : 1/7/22
Water Development Plan: None
Plan Priority: N/A
H9

20220 - City of Jamestown Emergency Water Project Cross Town Water Supply Repair

Application Details

Funding Opportunity:
19214-2022 Infrastructure Request

Funding Opportunity Due Date: Dec 31, 2022 3:00 PM

Program Area:
Funding for Infrastructure in ND - FIND

Status: Under Review

Stage: Final Application

Initial Submit Date: Jan 6, 2022 3:44 PM

Initially Submitted By: Jason Bivens

Last Submit Date: Jan 7, 2022 4:55 PM

Last Submitted By: Jason Bivens

Contact Information

Primary Contact Information

Active User*: Yes

Type: External User

Name: Salutation Sarah First Name
C Middle Name Hellekson Last Name

Title: City Administrator / City Auditor

Email*: shellekson@jamestownnd.gov

Address*: 102 3rd Ave S.E.
City Hall

Organization Information

Status*: Approved

Name*: City of Jamestown, ND

Organization Type*: Municipal Government

Tax Id: 456002099

Organization Website: https://jamestownnd.gov/

Address*: 102 3rd Ave S.E.

Jamestown North Dakota
City State/Province

58401
Postal Code/Zip

Phone*: 701-952-5938 Ext.
Phone
###-###-####

Fax: 701-252-5903
###-###-####

Comments:

Jamestown North Dakota
City State/Province

58401-4205
Postal Code/Zip

Phone*: 701-252-5900 Ext.
###-###-####

Fax: 701-252-5903
###-###-####

Benefactor:

Vendor ID:

PeopleSoft Supplier ID:

Comments:

Location Code:

SAM.gov Entity ID: 144572042

SAM.gov Name: Jamestown, City of Inc

SAM.gov Entity ID Expiration Date: 07/10/2022

State Issued ID:

Category #:

Year Begin:

Year Closed:

NCES#:

Restricted Indirect Cost Rate: 0.0%

Unrestricted Indirect Cost Rate: 0.0%

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study Name*: ER - Cross Town Water Supply Repair

Sponsor(s)*: City of Jamestown

County*: Stutsman

City*: Jamestown

Description of Request*: New

If Study, What Type:

If Project/Program, What Type: Municipal Water Supply

Jurisdictions/Stakeholders Involved*:

City of Jamestown. Department of Water Resources.

Specific Needs Addressed By the Project, Program or Study*:

Emergency repair needed / completed for an exposed watermain that was discovered in the James River on 9/8/2021. The exposed pipe is the main feeder pipe from the Ground Storage Reservoir to two of the three pressure zones in the City of Jamestown. Approximately 80% of the community relies on water that is supplied through the exposed pipe. Due to timing of the discovery it was necessary that the emergency repairs needed to be completed prior to winter.

Description of Problem or Need and How Project Addresses that Problem or Need.

Description of Problem*:

The existing line was installed in the 50's via open trench methods. Prior to crossing the river, a 45degree descent / bend was installed to get enough depth to install beneath the river. As shown in the 2nd map attachment the river has shifted over time, resulting in the pipe exposure. Ice forming on the James River & subsequent melting in the Spring of 2022 could lead to breaking of the pipe and a catastrophic failure for 80% of the Jamestown community.

For this project,

Choose City, County or Water District*:	City
What is the Current Estimated Population?*:	15849
For this project,	
What is the Benefited Population?*:	12000
Has Feasibility Study Been Completed?*:	N/A
Has Engineering Design Been Completed?*:	Yes
Have Assessment Districts Been Formed?*:	N/A
Have Land or Easements Been Acquired?*:	N/A
Has Sediment Analysis For Reconstruction Of An Existing Drain Been Completed?*:	N/A
Extraterritorial Jurisdiction?*:	N/A
Have You Applied For Any Federal Permits?*:	N/A
If Yes or Ongoing, Please Explain (include type/number):	
Have You Applied for any State Permits?*:	N/A
If Yes or Ongoing, Please Explain (include type/number):	

Have You Applied for any Local Permits?*: No

If Yes or Ongoing, Please Explain (include type/number):

Briefly explain the level of review the Project/Program/Study has undergone.

Level Review*:

Construction completed as and emergency repair project.

Do You Expect Any Obstacles To Implementation (i.e. problems with land acquisition, permits, funding, local opposition, environmental concerns, etc.)?

Obstacles*: No

Have you received, or do you anticipate receiving federal funding?

Federal Funding*: No

Implementation Timelines

Study*: 09/2021
Month/Year (00/0000)

Design*: 09/2021
Month/Year (00/0000)

Bid*: 10/2021
Month/Year (00/0000)

Construction Start*: 10/2021
Month/Year (00/0000)

Construction Completion*: 12/2021
Month/Year (00/0000)

Explain Additional Timeline Issues*:

Project completed as an emergency repair project. An over the phone meeting occurred with DWR on 11/23/2021. Email correspondence including project synopsis and maps exchanged with DWR (Andrea Travnicek & Pat Fridgen) on 12/10/2021.

Certification

Submitted by*: Sarah Hellekson 01/06/2022
First Name Last Name Date

Address*:	City Hall, 102 3rd Ave. SE Address Line 1 Address Line 2 Jamestown North Dakota 58401-4205 City State Zip Code
Telephone Number*:	701-252-5900
Sponsor Email*:	shellekson@jamestownnd.gov
Consulting Engineer*:	Interstate Engineering
Engineer Telephone Number*:	701-252-0234
Engineer Email*:	travis.dillman@interstateeng.com

This section needs to be completed by the project sponsor.

I certify that, to the best of my knowledge, the provided information is true and accurate.

Certify*:	Yes
Authorized Individual*:	Sarah Hellekson 01/06/2022 First Name Last Name Date

Documentation

Documentation

Project Specific Map

(Including an inset map of location within state.)

CLICK HERE **to see examples.**

Project Specific Map*:	01_Maps and Synopsis.pdf
Are You Seeking Department of Water Resources Cost-Share?*:	Yes

CLICK HERE **for SFN 61801 Delineation of Costs.**

Delineation of Costs SFN 61801:	02_sfn_61801_delineation_of_cost.xlsx
Type of Request:	Construction
Signed Plans and Specifications For Bidding:	STAMPED SIGNED PLANS.pdf
Water Supply Projects?:	Yes

CLICK HERE **for Life Cycle Cost Analysis Instructions.**

Life Cycle Cost Analysis: 04_life_cycle_cost_analysis_worksheet 1.xlsx

CLICK HERE **for SFN 61938 Capital Improvement Plan.**

Capital Improvement Plan SFN 61938: Jamestown League of Cities CIP.xlsx

Rural Flood Control?: No

Drain Reconstructions?: No

Flood Recovery Property Acquisition?: No

Community Flood Control, Rural Flood Control, Bank Stabilization, or Snag & Clear Project With Total Cost of $200,000 or More?: No

Feasibility/Engineering Study for the Proposed Project or Other Applicable Documents: No

Engineering Total Cost of $35,000 or More?: Yes

Engineering Selection Documentation: 06_Emergency Declaration .pdf

Sources

Funding Amount Requested

State FY1	State FY2	Beyond State FY2	Total Cost	Source	Type	Term	Interest Rate
$438,000.00	$0.00	$0.00	$438,000.00	Department of Water Resources	Grant	0.00	0.00
$438,000.00	**$0.00**	**$0.00**	**$438,000.00**				

Other Funding Sources

Type	Source	Grant or Loan	State FY1	State FY2	Beyond State FY2	Total Other Sources
Local	Jamestown	N/A	$0.00	$0.00	$312,000.00	$312,000.00
			$0.00	**$0.00**	**$312,000.00**	**$312,000.00**

Project Total

Current Requested Amount: $438,000.00

Other Funding Sources: $312,000.00

Total Project: $750,000.00

CONSTRUCTION PLANS

FOR

CITY OF JAMESTOWN

EMERGENCY WATERMAIN REPLACEMENT

JAMESTOWN, NORTH DAKOTA

SEPTEMBER, 2021

IE PROJECT No. J21-00-136

PLAN INDEX

LOCATION MAP
NOT TO SCALE

JAMESTOWN , N.D.
NOT TO SCALE

BARRELL MOURNBUCKLE
REGISTERED
PROFESSIONAL
P.E. 3432
ENGINEER
NORTH DAKOTA
23 DEC 21

811 Know what's below. Call before you dig.

BOARD MEMBERS

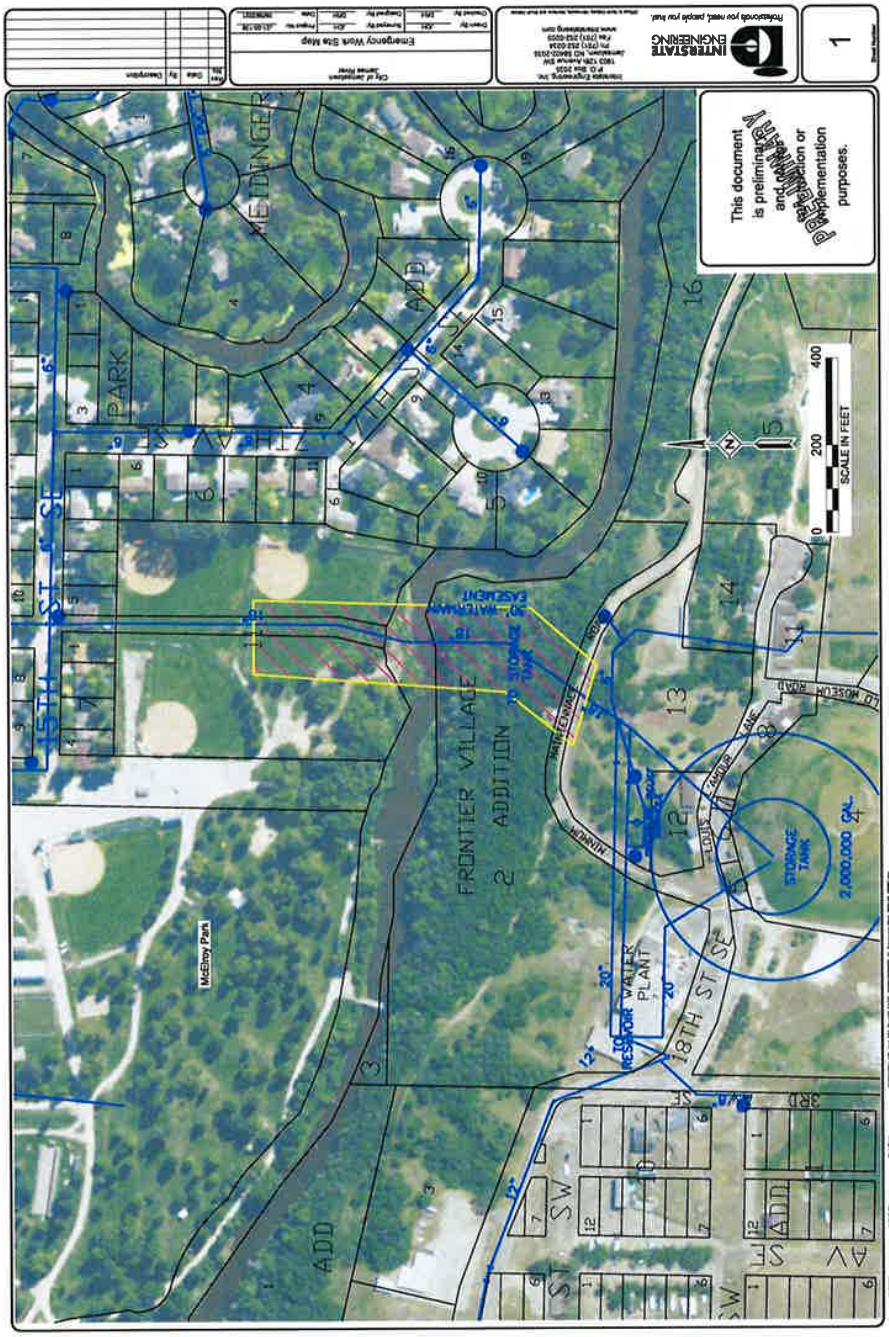
DWAYNE HEINRICH	MAYOR
BRIAN KAMLITZ	COUNCIL MEMBER
DAN BUCHANAN	COUNCIL MEMBER
DAVID SCHLOEGEL	COUNCIL MEMBER
DAVID STEELE	COUNCIL MEMBER
SARAH HELLEKSON	CITY ADMINISTRATOR

NO.	DATE	BY	DESCRIPTION

INTERSTATE ENGINEERING
Interstate Engineering, Inc.
P.O. Box 2035
1903 12TH Avenue Southwest
Jamestown, ND 58402-2035
Ph: (701) 252-0234
Fax (701) 252-0203
www.interstateeng.com

G-1

DWR Date Received : 1/6/22



DELINEATION OF COSTS
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
PLANNING AND EDUCATION
SFN 61801 (10/2021)

DWR Date Received : January 10, 2022

Project:	ER - Cross Town Water Supply Repair
Sponsor:	City of Jamestown
Contact:	Sarah Hellekson
Phone:	701-252-5900
Engineer:	Travis Dillman, Interstate Engineering
Phone:	701-252-0234

Total Cost :	$ 750,000
Ineligible Cost :	$ 20,000
Eligible Cost :	$ 730,000
Local Cost :	$ 312,000

Date: January 7, 2022

	Cost-Share $
	$ 438,000
Preconstruction :	$ 14,400
Construction :	$ 423,600

Project Type:	**Cost-share %**
Municipal Water Expansion/Improvement	60%

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share $ *
		Construction Costs						
1	13.0%	Mobilization	1	LS	83,800.00	$ 83,800	60%	$ 50,280
2	6.7%	Earthwork	1	LS	43,100.00	$ 43,100	60%	$ 25,860
3	28.6%	Water Main 24 in	450	LF	410.00	$ 184,500	60%	$ 110,700
4	5.6%	Water Main 18 in	80	LF	450.00	$ 36,000	60%	$ 21,600
5	0.4%	Water Main 6 in	10	LF	250.00	$ 2,500	60%	$ 1,500
6	14.1%	Pipeline Appurtenances	1	LS	90,700.00	$ 90,700	60%	$ 54,420
7	0.9%	Hydrant	1	EA	5,650.00	$ 5,650	60%	$ 3,390
8	0.5%	Meter - Master	1	EA	3,250.00	$ 3,250	60%	$ 1,950
9	0.4%	Gate Valve	1	EA	2,450.00	$ 2,450	60%	$ 1,470
10	6.0%	Gate Valve	2	EA	19,500.00	$ 39,000	60%	$ 23,400
11	1.6%	Laboratory	1	LS	10,500.00	$ 10,500	60%	$ 6,300
12	4.2%	Detailed Tie-In	2	EA	13,500.00	$ 27,000	60%	$ 16,200
13	2.4%	Concrete	2	EA	7,725.00	$ 15,450	60%	$ 9,270
14	1.9%	Fittings	50	LBS	240.00	$ 12,000	60%	$ 7,200
15	4.7%	Seeding	1	LS	30,600.00	$ 30,600	60%	$ 18,360
16	0.0%		0		-	$ -	60%	$ -
17	0.0%		0		-	$ -	60%	$ -
18	0.0%		0		-	$ -	60%	$ -
19	0.0%		0		-	$ -	60%	$ -
20	0.0%		0		-	$ -	60%	$ -
21	0.0%		0		-	$ -	60%	$ -
22	0.0%		0		-	$ -	60%	$ -
23	0.0%		0		-	$ -	60%	$ -
24	0.0%		0		-	$ -	60%	$ -
25	0.0%		0		-	$ -	60%	$ -
26	0.0%		0		-	$ -	60%	$ -
		Construction Sub-Total				$ 586,500	60%	$ 351,900
	10.0%	**Contingency**				$ 58,650	60%	$ 35,190
	86.0%	**Construction Total**				$ 645,150	60%	$ 387,090
		Preconstruction Costs						
27	3.7%	Final Design	1	NA	24,000.00	$ 24,000	60%	$ 14,400
28	0.0%		0		-	$ -	60%	$ -
29	0.0%		0		-	$ -	60%	$ -
30	0.0%		0		-	$ -	60%	$ -
31	0.0%		0		-	$ -	60%	$ -
	3.2%	**Preconstruction Total**				$ 24,000	60%	$ 14,400
		Construction Engineering Costs						
32	2.3%	Construction Contract Management	1	NA	15,000.00	$ 15,000	60%	$ 9,000
33	6.2%	Project Inspection	1	NA	40,000.00	$ 40,000	60%	$ 24,000
34	0.0%		0		-	$ -	60%	$ -
35	0.0%		0		-	$ -	60%	$ -
36	0.0%		0		-	$ -	60%	$ -
	7.3%	**Construction Engineering Total**				$ 55,000	60%	$ 33,000
		Other Eligible Costs						
37	0.8%	Miscellaneous	1	LS	5,850.00	$ 5,850	60%	$ 3,510
38	0.0%		0		-	$ -	60%	$ -
39	0.0%		0		-	$ -	60%	$ -
40	0.0%		0		-	$ -	60%	$ -
41	0.0%		0		-	$ -	60%	$ -
	0.8%	**Other Eligible Total**				$ 5,850	60%	$ 3,510
		In-eligible Costs						
42	1.3%	Legal Expenses	1	NA	10,000.00	$ 10,000	0%	$ -
43	1.3%	Administrative	1	NA	10,000.00	$ 10,000	0%	$ -
44	0.0%		0		-	$ -	0%	$ -
45	0.0%		0		-	$ -	0%	$ -
	2.7%	**Other Ineligible Total**				$ 20,000	0%	$ -
	100.0%	**Total**				$ 750,000		
		Eligible Total				$ 730,000	60%	$ 438,000
		Federal or State Funds That Supplant Costs				$ -		
		Eligible Cost Total				$ 730,000	60%	$ 438,000

* The Cost-share estimate is purely for planning and informational purposes only and does not, in any way, guarantee a financial commitment to any degree, from the State Water Commission.

10 YEAR CAPITAL IMPROVEMENT PROJECTIONS FOR BND AND NDLC

CITY OF: Jamestown, ND

Enter Dollar Amounts into Columns by Year

	Repair/Replacement of Existing Infrastructure						New Infrastructure						
PROJECTED YEAR OF IMPROVEMENT	WATER UTILITY	SANITARY SEWER UTILITY	STORMWATER UTILITY	ROADWAY PLANS	CITY BUILDING PLANS	OTHER FACILITY PLANS	WATER UTILITY	SANITARY SEWER UTILITY	STORMWATER UTILITY	ROADWAY PLANS	CITY BUILDING PLANS	OTHER FACILITY PLANS	TOTAL
2019	3,100,000	3,600,000		1,500,000			500,000	5,600,000					14,300,000
2020	4,600,000	8,200,000	8,400,000	1,650,000			2,600,000	8,200,000	700,000			400,000	34,750,000
2021	1,300,000	1,500,000	600,000	1,800,000	3,000,000				1,000,000				9,200,000
2022	2,200,000	800,000	450,000	1,950,000					600,000	6,000,000		3,500,000	15,500,000
2023	1,500,000	3,500,000	500,000	2,100,000		1,000,000			2,000,000				10,600,000
2024	1,600,000	800,000	550,000	2,250,000					800,000		10,000,000	400,000	16,400,000
2025	2,300,000	900,000	600,000	2,400,000									6,200,000
2026	1,500,000	4,000,000	650,000	2,550,000			4,000,000						12,700,000
2027	3,000,000	780,000	700,000	2,700,000		1,000,000						4,000,000	12,180,000
2028	1,700,000	600,000	750,000	2,850,000									5,900,000
2029	3,000,000	1,100,000	600,000	3,000,000									7,700,000
145,430,000	25,800,000	25,780,000	13,800,000	24,750,000	3,000,000	2,000,000	7,100,000	13,800,000	5,100,000	6,000,000	10,000,000	8,300,000	

Project Synopsis

for

City of Jamestown

Cross Town Water Supply Repair

January 6, 2022

J21-00-136

Locations:

McElroy Park, Jamestown ND. From the existing softball fields headed south across the river up to the existing cross town booster station located on the Scenic Buffalo Road.

4th Ave SW from 13th St SW to 15th St SW, Jamestown ND.

See attached project location maps.

Description:

On September 8, 2021, the City of Jamestown Water Department was informed of an exposed pipe in the James River just north of the Water Treatment Plant. Upon inspection, it was determined this exposed pipe is the main feeder pipe from the Ground Storage Reservoir to two of the three pressure zones in the City. Immediately it was determined this pipe had to be relocated to ensure water for 80% of our community. With winter coming, and the concern of ice on the river that could put pressure on the pipe joints and break the pipe, this line had to be relocated as soon as possible.

On September 10, 2021, the Jamestown City Council held a special council meeting to declare an emergency and immediately move towards the necessary repairs/replacement of this line. With this declaration, the City started working with Naastad Brothers on a scope and timeline to get this work completed as quickly as possible, prior to the heart of winter setting in. At the same special council meeting on September 10, 2021, the city also authorized the purchase of 800' of 24" HDPE pipe. This purchase was made quickly as product availability is in very short supply during this pandemic. On October 19, 2021, the new HDPE pipe was installed under the river by Directional Drilling methods. Currently, we are still waiting for line stops to be manufactured and delivered to the site. The tentative delivery of those line stops is towards the end of the week of December 6, 2021. If they do arrive late this week, the contractor is set to install the line stops next week and make all connections to the newly installed HDPE pipe.

The existing line was installed in the late 1950's via open trench/excavation methods. Prior to crossing the river, a 45-degree bend was installed to get enough depth to install under the river bottom. As shown on the attached map, the river has shifted over time, resulting in the exposed pipe. Ice forming

in the James River and subsequent melting in the Spring of 2022 could likely lead to the breaking of the pipe and a catastrophic failure of 80% of the Jamestown Community.

There are a few factors that came into the decision to declare and emergency and immediately pursue corrective action. Attached to this synopsis is a map showing the area that would have been out of water if this line would have failed. The area out of water would be roughly 80% of our community. In addition to the area shown, the City of Jamestown also supplies water to the Spiritwood Energy Park (SEPA), roughly 600,000 gallons per day. If this line would have failed, all of the water the city supplies to SEPA would have stopped. Another consideration was timing. With this discovery in September, and winter right around the corner, the City could not take the chance of ice forming on the river and pressure from the ice causing the pipe and/or pipe joints to split and lose water. If this break would have happened in winter, there simply would not have been enough water mains to supply pressure to the entire city, and SEPA, and keep our system operational. In addition, the type of work that is required would be almost impossible to do during the heart of a North Dakota Winter.

With the overall scope of the project, we are estimating the total cost for the project to install new 24" HDPE directionally drilled pipe, with all associated fittings, valves, line stops and fully operational new line is roughly $750,000. This is a significant burden to the City of Jamestown. Through the South Central Dakota Regional Council, the City did apply for Governor's funds on September 13, 2021. On September 20, the City found out the project would not be funded. This leaves the City is a difficult position, to fund roughly $750,000 emergency water main project that was not budgeted, and desperately needed to be completed prior to a catastrophic failure that would leave 80% of the City without the full water service it needs.

Attached to the end of this synopsis are two different pictures that show the area of concern of the existing pipe that was found exposed in the James River.

Prepared by

Travis Dillman

Travis Dillman, P.E.
City Engineer
City of Jamestown, ND

City of Jamestown, North Dakota

RESOLUTION

Introduced by Council Member Buchanan, who moved its adoption; September 10, 2021

Be It Resolved by the City Council of the City of Jamestown, to wit:

THAT, the City Council does hereby approve an emergency declaration for the replacement of the 18-inch waterline at the James River in southeast Jamestown.

ATTEST:

Sarah Hellekson
City Administrator

APPROVED:

Dwaine Heinrich
Mayor

Council Member Steele seconded the motion for adoption.

Roll Call No. 1 showed: 5 ayes, 0 nays, 0 absent.

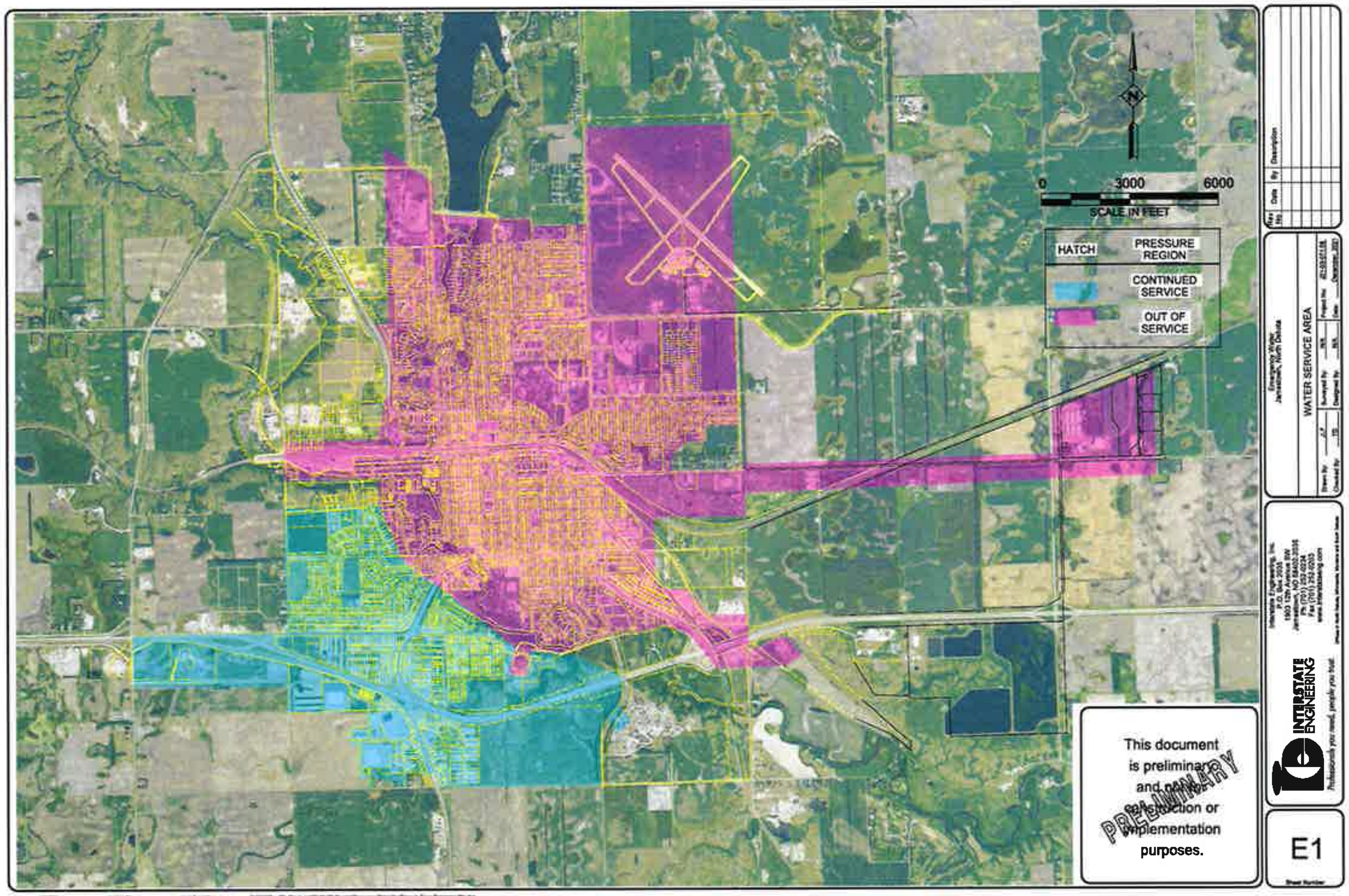

0 3000 6000
SCALE IN FEET
HATCH
PRESSURE REGION
CONTINUED SERVICE
OUT OF SERVICE
WATER SERVICE AREA
INTERSTATE ENGINEERING
Professionals you need, people you trust.
This document is preliminary
PRELIMINARY
purposes.
E1

Photo 1: Taken September 8, 2021.

Photo 2: Taken September 8, 2021.

19876 - Garrison Water System Improvements

Application Details

Funding Opportunity:	19214-2022 Infrastructure Request
Funding Opportunity Due Date:	Dec 31, 2022 3:00 PM
Program Area:	Funding for Infrastructure in ND - FIND
Status:	Under Review
Stage:	Final Application
Initial Submit Date:	Jan 7, 2022 5:07 PM
Initially Submitted By:	Grant Dockter
Last Submit Date:	
Last Submitted By:	

Contact Information

Primary Contact Information

Active User*:	Yes
Type:	External User
Name:	Salutation Grant Middle Name Dockter First Name Last Name
Title:	
Email*:	grant.dockter@mooreengineeringinc.com
Address*:	4503 Coleman St - Suite 105
	Bismarck North Dakota 58503 City State/Province Postal Code/Zip
Phone*:	701-425-1842 Ext. Phone ###-###-####
Fax:	###-###-####
Comments:	

Organization Information

Status*:	Approved
Name*:	City of Garrison
Organization Type*:	Political Subdivision
Tax Id:	
Organization Website:	
Address*:	1 West Central Ave

Garrison North Dakota 58540-0000
City State/Province Postal Code/Zip

Phone*: (701) 463-2600 Ext.
###-###-####

Fax: ###-###-####

Benefactor:

Vendor ID:

PeopleSoft Supplier ID:

Comments:

Location Code:

SAM.gov Entity ID:

SAM.gov Name:

SAM.gov Entity ID Expiration Date:

State Issued ID:

Category #:

Year Begin:

Year Closed:

NCES#:

Restricted Indirect Cost Rate: 0.0%

Unrestricted Indirect Cost Rate: 0.0%

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study Name*: Water Treatment Plant

Sponsor(s)*: City of Garrison

County*: McLean

City*: Garrison

Description of Request*: Updated (previously submitted)

If Study, What Type:

If Project/Program, What Type: Rural Water Supply

Jurisdictions/Stakeholders Involved*:

City of Garrison and Garrison Rural Water District. The facilities are owned by the City of Garrison, but the system is a regional system that serves both entities.

Specific Needs Addressed By the Project, Program or Study*:

As population increases in the steadily growing area, the water demand will quickly outgrow the treatment system. To meet increasing demands, the scope of work for the project includes improvements and expansion to the water treatment system.

Description of Problem or Need and How Project Addresses that Problem or Need.

Description of Problem*:

The City's existing water treatment system is being utilized to serve the City and surrounding area served by Garrison Rural Water District. Today's system is reaching the limits of its capacity due to rapid growth and demand within the City and rural water systems and is in need of improvements.

For this project,

Choose City, County or Water District*: City

What is the Current Estimated Population?*: 2238

For this project,

What is the Benefited Population?*: 2238

Has Feasibility Study Been Completed?*: Yes

Has Engineering Design Been Completed?*: Yes

Have Assessment Districts Been Formed?*: N/A

Have Land or Easements Been Acquired?*: N/A

Has Sediment Analysis For Reconstruction Of An Existing Drain Been Completed?*: N/A

Extraterritorial Jurisdiction?*: No

Have You Applied For Any Federal Permits?*: No

If Yes or Ongoing, Please Explain (include type/number):

Have You Applied for any State Permits?*: Yes

If Yes or Ongoing, Please Explain (include type/number):

NDDEQ Plan approval

Have You Been Approved for any State Permits?: No

Have You Applied for any Local Permits?*: Ongoing

If Yes or Ongoing, Please Explain (include type/number):

We will submit plans to NDDEQ for plan approval.

If Yes or Ongoing, Please Explain (include type/number):

Briefly explain the level of review the Project/Program/Study has undergone.

Level Review*:

The project will go through NDDEQ plan review and approval along with internal review.

Do You Expect Any Obstacles To Implementation (i.e. problems with land acquisition, permits, funding, local opposition, environmental concerns, etc.)?

Obstacles*: Yes

If Yes, Please Explain:

The City of Garrison and the GRWD cannot support this project without funding.

Have you received, or do you anticipate receiving federal funding?

Federal Funding*: No

Implementation Timelines

Study*:	05/2017 Month/Year (00/0000)
Design*:	07/2020 Month/Year (00/0000)
Bid*:	1/2022 Month/Year (00/0000)
Construction Start*:	06/2022 Month/Year (00/0000)
Construction Completion*:	11/2023 Month/Year (00/0000)

Explain Additional Timeline Issues*:

No additional timeline issues.

Certification

Submitted by*:	Diane Affeldt 01/17/2022 First Name Last Name Date
Address*:	1 West Central Ave PO Box 459 Address Line 1 Address Line 2 Garrison North Dakota 58540-0000 City State Zip Code
Telephone Number*:	701-463-2600
Sponsor Email*:	garrisoncity@restel.com
Consulting Engineer*:	Moore Engineering
Engineer Telephone Number*:	701-425-1842
Engineer Email*:	grant.dockter@mooreengineeringinc.com

This section needs to be completed by the project sponsor.
I certify that, to the best of my knowledge, the provided information is true and accurate.

Certify*:	Yes
Authorized Individual*:	Stuart Merry 01/07/2022 First Name Last Name Date

Documentation

Documentation

Project Specific Map
(Including an inset map of location within state.)
CLICK HERE to see examples.

Project Specific Map*:	21164_WTP_Project_Location_Map_20211208.pdf
Are You Seeking Department of Water Resources Cost-Share?*:	Yes

CLICK HERE for SFN 61801 Delineation of Costs.

Delineation of Costs SFN 61801:	21164_detailed_project_costs.xlsx
Type of Request:	Construction
Signed Plans and Specifications For Bidding:	21164_Garrison_WTP_Rebid_eStamp_20220107.pdf
Water Supply Projects?:	Yes

CLICK HERE for Life Cycle Cost Analysis Instructions.

Life Cycle Cost Analysis:	21164_life_cycle_cost_analysis_worksheet_UPDATED.xlsx

CLICK HERE for SFN 61938 Capital Improvement Plan.

Capital Improvement Plan SFN 61938:	City CIP Plan.pdf
Rural Flood Control?:	No
Drain Reconstructions?:	No
Flood Recovery Property Acquisition?:	No
Community Flood Control, Rural Flood Control, Bank Stabilization, or Snag & Clear Project With Total Cost of $200,000 or More?:	No
Feasibility/Engineering Study for the Proposed Project or Other Applicable Documents:	Yes
Feasibility/Engineering Study Material or Other Applicable Document:	21164_CityRequest.pdf
Engineering Total Cost of $35,000 or More?:	Yes
Engineering Selection Documentation:	EngringSelectionProcess.pdf

Sources

Funding Amount Requested

State FY1	State FY2	Beyond State FY2	Total Cost Source	Type	Term	Interest Rate
$5,327,250.00	$0.00	$0.00	$5,327,250.00		0.00	0.00
$5,327,250.00	**$0.00**	**$0.00**	**$5,327,250.00**			

Other Funding Sources

Type	Source	Grant or Loan	State FY1	State FY2	Beyond State FY2	Total Other Sources
Local	Water Rates	N/A	$1,775,750.00	$0.00	$0.00	$1,775,750.00
			$1,775,750.00	**$0.00**	**$0.00**	**$1,775,750.00**

Project Total

Current Requested Amount:	$5,327,250.00
Other Funding Sources:	$1,775,750.00
Total Project:	$7,103,000.00

Requesting Construction: 75% - $1,924,000
60% - $ 860,000

January 7, 2022

Andrea Travnicek, Ph.D
Director
Department of Water Resources
900 East Boulevard Avenue, Dept. 770
Bismarck, North Dakota 58105-0850

Subject: Request for Water System Improvements
Water Supply & Treatment Expansion
City of Garrison
Garrison, ND

In February of 2020, the City of Garrison entered into an agreement for cost-share reimbursement with the Department of Water Resources, not to exceed $3,396,000 for our Water Treatment Plant and Water Supply Project. Since then, the project has been publicly bid, however, the bids were rejected due to high prices. The project is scheduled to be rebid on February 4th, a final budget will then be prepared.

The original opinion of cost submitted to the SWC in 2020 totaled $5,700,000. Enclosed is the updated pre-bid Engineer's Estimate of Cost projecting a $7,103,000 total project cost, which is a 25% increase from the original budget. It has become apparent that this project is experiencing the financial impacts of Covid-19 and the problems in the supply chain and extreme labor shortages.

We are respectfully requesting additional funding on this project for all eligible costs. The project was originally funded at a 60% cost share, but we believe this project is eligible for a 75% cost share due to it being a joint project between the City of Garrison and Garrison Rural Water District.

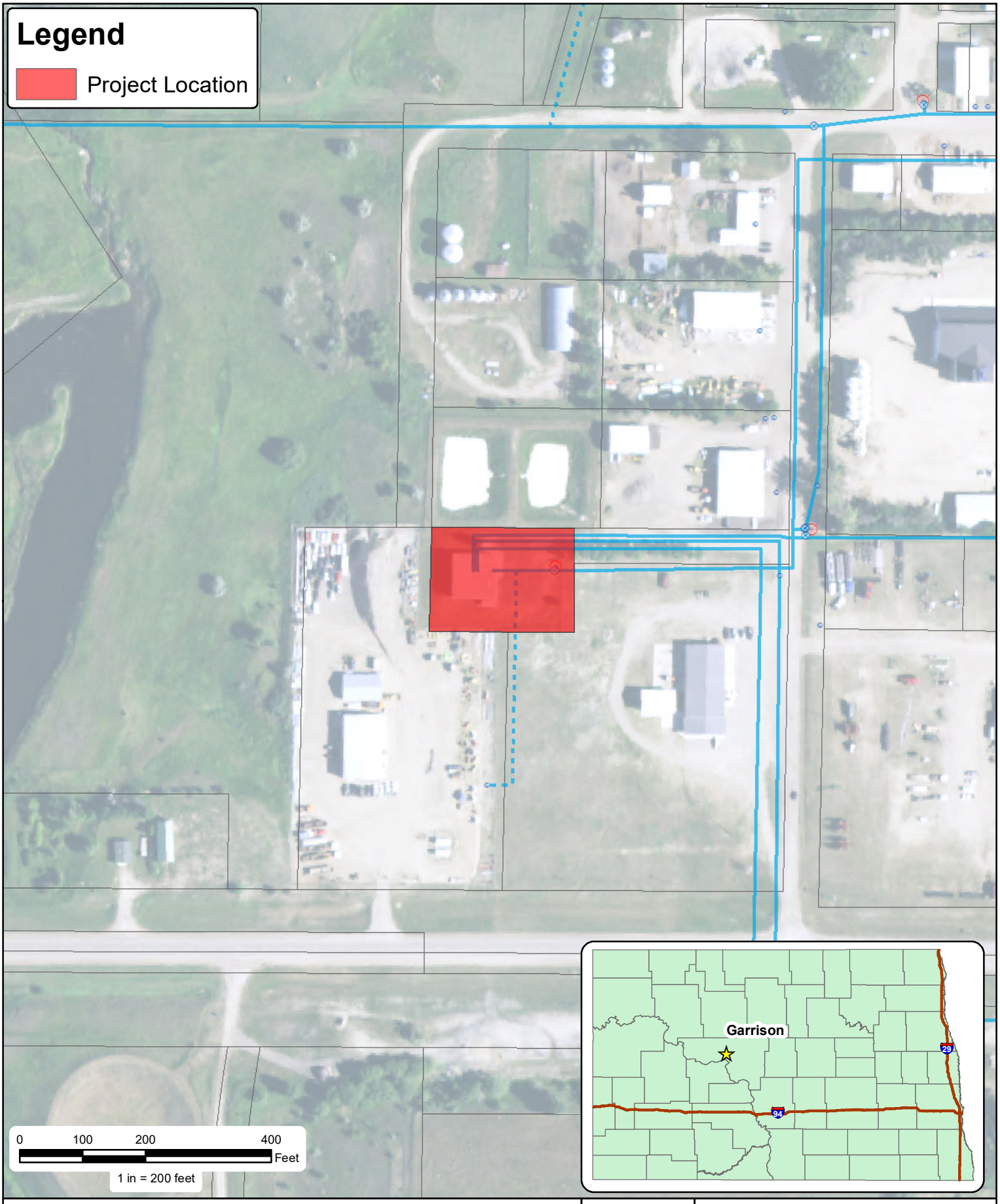
Due to the cost increase of the project, and the additional cost share request, we are respectfully requesting an additional $1,931,250 for the project. The remaining cost share will be funded locally by the City of Garrison and Garrison Rural Water District. Construction for the subject project is expected to be completed in November of 2023.

If you have any questions regarding the application, please contact Kent Ritterman (City Engineer) at 701.499.5818 or email at Kent.Ritterman@mooreengineeringinc.com. Your consideration of this request, and your understanding, is greatly appreciated!

Sincerely,

Stuart Merry
City of Garrison
Enclosures

DWR Date Received : 1/10/22



PROPOSED WATER TREATMENT PLANT IMPROVEMENTS
GARRISON, NORTH DAKOTA

Created By: TJS Date Created: 12/08/21 Date Saved: 12/08/21 Date Plotted: 08/09/12 Date Exported: 12/08/21
Plotted By: tanner.schmidt Parcel Date: N/A Aerial Image: 2020 County NAIP SIDS Elevation Data: Lidar
Horizontal Datum: NAD 1983 StatePlane North Dakota South FIPS 3302 Feet Vertical Datum: NAVD1988
T:\Projects\21100\21164\21164_WTP_Project_Location_Map.mxd

N W E S

moore engineering, inc.

DELINEATION OF COSTS
NORTH DAKOTA WATER COMMISSION
PLANNING DIVISION
SFN 61801 (11/2020)

SWC Date Received : January 07, 2022

Project Costs

					Date:	January 6, 2022					Date:	January 6, 2022	
Project:	Water System Improvements		**Total Cost :**	$ 7,103,000		**Cost-Share $**		**Total Cost :**	$ 7,103,000			**Cost-Share $**	
Sponsor:	City of Garrison		**Ineligible Cost :**	$ 10,000		$ 5,319,800		**Ineligible Cost :**	$ 10,000			$ 4,255,800	
Contact:	Diane Affeldt		**Eligible Cost :**	$ 7,093,000	**Previous Approval**	$ 3,396,000		**Eligible Cost :**	$ 7,093,000	**Previous Approval**		$ 3,396,000	
Phone:	701_463_2600				**Current Request**	$ 1,923,800				**Current Request**		$ 859,800	
Engineer:	Tom Klabunde, Moore Engineering Inc			**Project Type:**		**Cost-share %**			**Project Type:**			**Cost-share %**	
Phone:	701_282_4692		Rural Water - Expansion/Improvement			75%		Municipal Water Expansion/Improvement				60%	

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share $ *
		Construction Costs						
1	0.8%	Mobilization	1	EA	47,000.00	$ 47,000.00	75%	$ 35,250.00
2	0.1%	Erosion Control	1	LS	3,000.00	$ 3,000.00	75%	$ 2,250.00
3	0.0%	Water Main 6 in	1	LS	1,800.00	$ 1,800.00	75%	$ 1,350.00
4	3.1%	Water Main 8 in	1	LS	183,100.00	$ 183,100.00	75%	$ 137,325.00
5	0.3%	Hydrant	1	LS	17,300.00	$ 17,300.00	75%	$ 12,975.00
6	0.1%	Traffic Control	1	LS	6,500.00	$ 6,500.00	75%	$ 4,875.00
7	0.2%	Connection to Existing Line	10	EA	980.00	$ 9,800.00	75%	$ 7,350.00
8	0.2%	Culverts	1	LS	8,904.00	$ 8,904.00	75%	$ 6,678.00
9	0.2%	Landscaping	1	LS	12,600.00	$ 12,600.00	75%	$ 9,450.00
10	0.7%	Gate Valve	1	LS	39,500.00	$ 39,500.00	75%	$ 29,625.00
11	0.8%	Boring - Cased	1	LS	44,250.00	$ 44,250.00	75%	$ 33,187.50
12	2.5%	Road Repair	1	LS	143,938.00	$ 143,938.00	75%	$ 107,953.50
13	0.1%	Other Services Provided By Contractor	1	LS	6,000.00	$ 6,000.00	75%	$ 4,500.00
14	70.4%	Water Treatment Plant Improvements	1	LS	4,100,000.00	$ 4,100,000.00	75%	$ 3,075,000.00
15	11.6%	Electrical	1	LS	675,000.00	$ 675,000.00	75%	$ 506,250.00
16	0.0%					$ -	75%	$ -
17	0.0%		0		-	$ -	75%	$ -
18	0.0%		0		-	$ -	75%	$ -
19	0.0%		0		-	$ -	75%	$ -
20	0.0%		0		-	$ -	75%	$ -
21	0.0%		0		-	$ -	75%	$ -
22	0.0%		0		-	$ -	75%	$ -
23	0.0%		0		-	$ -	75%	$ -
24	0.0%		0		-	$ -	75%	$ -
25	0.0%		0		-	$ -	75%	$ -
26	0.0%		0		-	$ -	75%	$ -
		Construction Sub-Total				$ 5,298,692.00	75%	$ 3,974,019.00
	10.0%	**Contingency**				$ 528,308.00	75%	$ 396,231.00
	82.0%	**Construction Total**				$ 5,827,000.00	75%	$ 4,370,250.00
		Engineering Costs						
27	5.1%	Project Inspection and Construction Staf	1	NA	300,000.00	$ 300,000.00	75%	$ 225,000.00
28	3.3%	Construction Contract Management	1	NA	190,000.00	$ 190,000.00	75%	$ 142,500.00
29	0.1%	Materials Testing	1	NA	5,000.00	$ 5,000.00	75%	$ 3,750.00
30	7.5%	Final Design	1	NA	435,000.00	$ 435,000.00	75%	$ 326,250.00
31	1.5%	Preliminary Design	1	NA	90,000.00	$ 90,000.00	75%	$ 67,500.00
32	0.3%	Post-Construction / Warranty	1	NA	20,000.00	$ 20,000.00	75%	$ 15,000.00
33	0.9%	Bidding / Negotiations	1	NA	55000.00	$ 55,000.00	75%	$ 41,250.00
	15.4%	**Engineering Total**				$ 1,095,000.00	75%	$ 821,250.00
		Other Eligible Costs						
33	0.0%	Legal	1		-	$ -	75%	$ -
34	2.4%	Buy-In Capacity	1		171,000.00	$ 171,000.00	75%	$ 128,250.00
35	0.0%		1		-	$ -	75%	$ -
36	0.0%		1		-	$ -	75%	$ -
37	0.0%		1		-	$ -	75%	$ -
38	0.0%		1		-	$ -	75%	$ -
39	0.0%		1		-	$ -	75%	$ -
40	0.0%		1		-	$ -	75%	$ -
	2.4%	**Other Eligible Total**				$ 171,000.00	75%	$ 128,250.00
		In-eligible Costs						
41	0.1%	Legal Expenses	1		10,000.00	$ 10,000.00	0%	$ -
42	0.0%		1		-	$ -	0%	$ -
43	0.0%		1		-	$ -	0%	$ -
44	0.0%		1		-	$ -	0%	$ -
45	0.0%		1		-	$ -	0%	$ -
46	0.0%		1		-	$ -	0%	$ -
47	0.0%		1		-	$ -	0%	$ -
48	0.0%		1		-	$ -	0%	$ -
					-			
	0.1%	**Other Ineligible Total**				$ 10,000.00	0%	$ -
	100.0%				**Total**	$ 7,103,000.00		
					Eligible Total	$ 7,093,000.00	75%	$ 5,319,750.00
					Federal or State Funds That Supplant Costs	$ -		
					Eligible Cost Total	$ 7,093,000.00	75%	$ 5,319,750.00

* The Cost-share estimate is purely for planning and informational purposes only and does not, in any way, guarantee a financial commitment to any degree, from the State Water Commission.

Life Cycle Cost Analysis Review

Sponsor: City of Garrison
Project Title: Water Treatment Plant **Date:** January 17, 2022

Explanation of Alternatives:

The City's existing water supply and treatment system is being utilized to serve the City and surrounding area served by Garrison Rural Water District. The city's current system is reaching the limits of its capacity due to rapid growth within the rural water system and modest growth within the city. As population increases in the steadily growing area, the water demand will quickly outgrow the available raw water supply and treatment system.

Treatment Plant Rehabilitation - Improvements for raw water intake piping and pumping systems along with improvements for the water treatment plant which are occasionally exceeding design limits.
New Membrane Treatment Plant – Complete redesign for a different membrane system.
New Lime Softening Treatment Plant – Complete redesign for a different approach to treating water.

Inputs:

	Treatment Plant Rehabilitation (Preferred)	New Membrane Treatment Plant	New Lime Softening Treatment Plant	Do Nothing
Users Served	2238			
Construction Cost	$7,103,000	$9,664,700	$9,146,300	$0
Annual O & M	$315,000	$340,000	$305,000	$400,000

Details:

The city's filtration system is not expected to meet future capacity requirements and the clear well is not expected to have the capacity to supply the desired system flow rate. This project is proposed to increase existing capacity through upgrades and additions. Current capacity is 576,000 gallons per day (GPD); current use averages 337,000 GPD in August; the system has had peak demand equal to 580,000 GPD; and peek demand of 800,000 GPD is projected for 30 years in the future. This city system supplies water through GRWD to rural farmsteads, business, and to flagpole developments along the reservoir for resident, in-state seasonal, and seasonal rural residential properties with some out of state useage of the state park area. There are 753 GRWD users and 750 city users currently on the system. Long range plans indicate expected additional rural residential development of over 200 lots in the GRWD service area. The city itself has seen only minor growth of 32 persons from 2010 to 2018 according to the ND Dept. of Commerce, however when backcast to 2000 it is 167 persons in growth.

Model Function:

The economic model appears to have functioned properly. The results are deemed to be reliable and repeatable with the inputs provided by the project sponsor.

LCCA Model Results:

Scenario Analysis - Present Value Life Cycle Cost Summary

Present Value	**Treatment Plant Rehabilitation (Preferred)**	New Membrane Treatment Plant	New Lime Softening Treatment Plant	Do Nothing (Not Viable Due to Capacity Issues)
Capital Costs	$7,103,000	$9,546,000	$9,035,000	$0
O&M	$8,842,000	$9,215,000	$8,264,000	$10,843,000
Repair, Rehab, Replacement	$6,465,000	$6,387,000	$5,613,000	$0
Salvage Value	$883,000	$856,000	$712,000	$0
Total PVC	**$21,527,000**	$24,292,000	$22,200,000	$10,843,000
PV Cost Per User	**$9,619**	**$10,854**	**$9,920**	**$4,845**

	Garrison	Garrison RWA		
Current Water Rate (Cost Per 5000g)	**$54**	**$83**		
Comparable Water Rate	**$47**	**$77**		
Total Municipal Service Users	2,238	2,238	2,238	
Cost-Share Percent	60%	60%	60%	
Local Share	$2,841,200	$3,818,400	$3,614,000	
Other Funding	$0	$0	$0	
Total Local	$2,841,200	$3,818,400	$3,614,000	
Payment Per User With Cost-Share	**$6.42**	**$8.63**	**$8.17**	
Local Share	$7,103,000	$9,546,000	$9,035,000	
Other Funding	$0	$0	$0	
Total Local	$7,103,000	$9,546,000	$9,035,000	
Payment Per User Without Cost-Share	**$16.06**	**$21.58**	**$20.42**	

Explanation of Results:

The sponsors have a preference for implementing the Treatment Plant Rehabilitation alternative which is improvements to the existing system and raw water supply lines. This alternative is the lower cost alternative which addresses long-term projections of capacity shortfalls. The capital expense for this project versus the PVC are quite divergent due to the significant O&M expenses of running a water treatment facility. The PVC of the preferred alternative is $21.5 million with an upfront capital expenditure of $7.1 million. The no action alternative could handle capacity through increased utilization time of the existing plant until system growth meets a threshold where too many peak flow days in a row overwhelm the ability to include excess storage in daily flow requirements. The estimated time to the intersection of demand growth and system capacity at maximum reasonable utilization is not available.

	Year		Annual Population Growth Rate	Average Annual Population Increase/Decrease
ND Dept. of Commerce	2010	2020		
Population & Trends	1,453	1,458	0.0%	1

Other Comments:

LCCA Version Version 1.2021-7.26

CAPITAL IMPROVEMENT PLAN (CIP)
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
PLANNING AND EDUCATION DIVISION
SFN 61938 (7/2021)

System: City of Garrison
Date: 01/18/22

Population: 2,238
Users: 1,500

ASSET	UNITS	UNIT COST	QTY	RESERVE REPLACEMENT %	REPLACEMENT COST	AVERAGE LIFE (YRS)	ANNUAL RESERVE	MONTHLY RESERVE	MONTHLY RESERVE PER CUSTOMER
Existing Project CIP Costs									
Water Distribution	LSUM	$2,000,000	1	75.00%	$1,500,000	50	$30,000	$2,500	1.67
Water Tower Coatings	LSUM	$200,000	1	75.00%	$150,000	75	$2,000	$167	0.11
Lagoons	LSUM	$500,000	1	75.00%	$375,000	50	$7,500	$625	0.42
Sanitary Sewer Improvements	LSUM	$1,000,000	1	75.00%	$750,000	50	$15,000	$1,250	0.83
Drainage Upgrades	LSUM	$250,000	1	75.00%	$187,500	50	$3,750	$313	0.21
Facility Upgrades	LSUM	$500,000	1	75.00%	$375,000	40	$9,375	$781	0.52
Street Upgrades	LSUM	$1,000,000	1	75.00%	$750,000	20	$37,500	$3,125	347.22
Airport	LSUM	$250,000	1	75.00%	$187,500	20	$9,375	$781	0.52
Vehicle Maintenance	LSUM	$150,000	1	75.00%	$112,500	10	$11,250	$938	0.63
SUBTOTAL Existing CIP Costs					$4,387,500		$125,750	$10,479	$352.13
New Project CIP Costs									
Water Treatment Plant Upgrades	LSUM	$7,103,000	1	75.00%	$5,327,250	30	$177,575	$14,798	$9.87
SUBTOTAL New CIP Costs					$5,327,250		$177,575	$14,798	$9.87
TOTAL Existing and New Project CIP					$9,714,750		$303,325	$25,277	$361.99

	TOTAL RESERVES	ANNUAL RESERVE	MONTHLY RESERVE	MONTHLY RESERVE PER CUSTOMER
Current:	$500,000	$24,000	$2,000.00	$1.33
Adjustment:	$9,214,750	$279,325	$23,277	$360.66

	Monthly Ave Gal/user	Monthly $/kgal
Required	5,000	$72.40
Current	5,000	$0.27
Adjustment	5,000	$72.13

Report Prepared by (Title): Grant Dockter, Project Engineer
Date: January 20, 2021

Notes:

Instructions
1 - Fill in colored items
2 - Enter Existing asset project CIP costs
3 - Enter New asset project CIP costs
4 - Enter current total reserves and annual reserve

DWR Date Received : 1/7/2022
Water Development Plan: Yes - 2021
Plan Priority: Low

I1

20288 - WRWD: Interconnect with NRWD

Application Details

Funding Opportunity:
19214-2022 Infrastructure Request

Funding Opportunity Due Date: Dec 31, 2022 3:00 PM

Program Area:
Funding for Infrastructure in ND - FIND

Status: Under Review

Stage: Final Application

Initial Submit Date: Jan 7, 2022 11:52 AM

Initially Submitted By: Geoff Slick

Last Submit Date:

Last Submitted By:

Contact Information

Primary Contact Information

Active User*: Yes

Type: External User

Name: Mr. (Salutation) Geoff (First Name) Slick (Last Name)

Middle Name

Title: Rural Water Practice Leader

Email*: Geoffrey.slick@ae2s.com

Address*: 6250 Driftwood Dr

Organization Information

Status*: Approved

Name*: Walsh Rural Water District

Organization Type*: Political Subdivision

Tax Id: 45-0451398

Organization Website:

Address*: PO Box 309

Grand Forks North Dakota
City State/Province

58201
Postal Code/Zip

Phone*: 701-213-7580 Ext.
Phone
###-###-####

Fax: ###-###-####

Comments:

Grafton North Dakota
City State/Province

58237-0309
Postal Code/Zip

Phone*: (701) 352-3915 Ext.
###-###-####

Fax: ###-###-####

Benefactor:

Vendor ID:

PeopleSoft Supplier ID:

Comments:

Location Code:

SAM.gov Entity ID:

SAM.gov Name:

SAM.gov Entity ID Expiration Date:

State Issued ID:

Category #:

Year Begin:

Year Closed:

NCES#:

Restricted Indirect Cost Rate: 0.0%

Unrestricted Indirect Cost Rate: 0.0%

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study Name*: WRWD: Interconnect with NRWD

Sponsor(s)*: Walsh Rural Water District

County*: Walsh

City*: Grafton

Description of Request*: New

If Study, What Type:

If Project/Program, What Type: Rural Water Supply

Jurisdictions/Stakeholders Involved*:

Walsh Rural Water District Northeast Regional Water District Tri-County Water District

Specific Needs Addressed By the Project, Program or Study*:

The project will allow existing users to have adequate pressure and flow during summer months, provide a valuable/necessary interconnect between 3-water districts, and allow for new users to be added in the Lankin/Adams areas.

Description of Problem or Need and How Project Addresses that Problem or Need.

Description of Problem*:

Currently, both users from Walsh Rural Water District and Tri-County Water District experience little to no pressure during summer months. The system is also plagued with undersized pipelines that do not allow for waitlist users to be added to either system. Walsh RWD has an intermediate booster station that lifts the water 100 feet to a handful of users on the higher ground. Power bumps, freeze-ups, and line breaks cause these users to be out of water almost immediately.

For this project,

Choose City, County or Water District*:	Water District
What is the Current Estimated Population?*:	5000
For this project,	
What is the Benefited Population?*:	5000
Has Feasibility Study Been Completed?*:	No
Has Engineering Design Been Completed?*:	No
Have Assessment Districts Been Formed?*:	N/A
Have Land or Easements Been Acquired?*:	No
Has Sediment Analysis For Reconstruction Of An Existing Drain Been Completed?*:	N/A
Extraterritorial Jurisdiction?*:	N/A
Have You Applied For Any Federal Permits?*:	N/A
If Yes or Ongoing, Please Explain (include type/number):	
Have You Applied for any State Permits?*:	N/A
If Yes or Ongoing, Please Explain (include type/number):	

Have You Applied for any Local Permits?*: No

If Yes or Ongoing, Please Explain (include type/number):

Briefly explain the level of review the Project/Program/Study has undergone.

Level Review*:

Several public information meetings for Lankin area residents were held with residents in attendance. Also, a presentation at the Walsh RWD annual meeting out lining the scope and need for the project was conducted. A life cycle cost analysis was also completed and presented to the board, prior to DWR submittal, for long term viability reasons and to ensure the board was moving in the lowest life cycle cost direction.

Do You Expect Any Obstacles To Implementation (i.e. problems with land acquisition, permits, funding, local opposition, environmental concerns, etc.)?

Obstacles*: No

Have you received, or do you anticipate receiving federal funding?

Federal Funding*: No

Implementation Timelines

Study*: 03/2022
Month/Year (00/0000)

Design*: 03/2022
Month/Year (00/0000)

Bid*: 07/2022
Month/Year (00/0000)

Construction Start*: 08/2022
Month/Year (00/0000)

Construction Completion*: 08/2023
Month/Year (00/0000)

Explain Additional Timeline Issues*:

Supply chains issues or lack of contractors to perform the work are the only issues we currently view as increasing timeline of project.

Certification

Submitted by*:	Brian Reilly 01/07/2022 First Name Last Name Date
Address*:	14768 Highway 17 Address Line 1 Address Line 2 Grafton North Dakota 58237-9103 City State Zip Code
Telephone Number*:	701-352-3915
Sponsor Email*:	Breilly@polarcomm.com
Consulting Engineer*:	Geoff Slick
Engineer Telephone Number*:	701-746-8087
Engineer Email*:	Geoffrey.slick@ae2s.com

This section needs to be completed by the project sponsor.
I certify that, to the best of my knowledge, the provided information is true and accurate.

Certify*:	Yes
Authorized Individual*:	Brian Reilly 01/07/2022 First Name Last Name Date

Documentation

Documentation

Project Specific Map
(Including an inset map of location within state.)
CLICK HERE **to see examples.**

Project Specific Map*:	Service to Adams-Walsh.pdf
Are You Seeking Department of Water Resources Cost-Share?*:	Yes

CLICK HERE **for SFN 61801 Delineation of Costs.**

Delineation of Costs SFN 61801:	sfn_61801_delineation_of_cost.xlsx
Type of Request:	Preconstruction
Water Supply Projects?:	Yes

CLICK HERE **for Life Cycle Cost Analysis Instructions.**

Life Cycle Cost Analysis: life_cycle_cost_analysis_worksheet.xlsx

CLICK HERE **for SFN 61938 Capital Improvement Plan.**

Capital Improvement Plan SFN 61938: sfn_61938_capital_improvement_plan 1.xlsx

Rural Flood Control?: No

Drain Reconstructions?: No

Flood Recovery Property Acquisition?: No

Community Flood Control, Rural Flood Control, Bank Stabilization, or Snag & Clear Project With Total Cost of $200,000 or More?: No

Feasibility/Engineering Study for the Proposed Project or Other Applicable Documents: No

Engineering Total Cost of $35,000 or More?: Yes

Engineering Selection Documentation: Engineering Selection Minutes.pdf

Sources

Funding Amount Requested

State FY1	State FY2	Beyond State FY2	Total Cost Source	Type	Term	Interest Rate
$161,506.00	$0.00	$0.00	$161,506.00		0.00	0.00
$161,506.00	**$0.00**	**$0.00**	**$161,506.00**			

Other Funding Sources

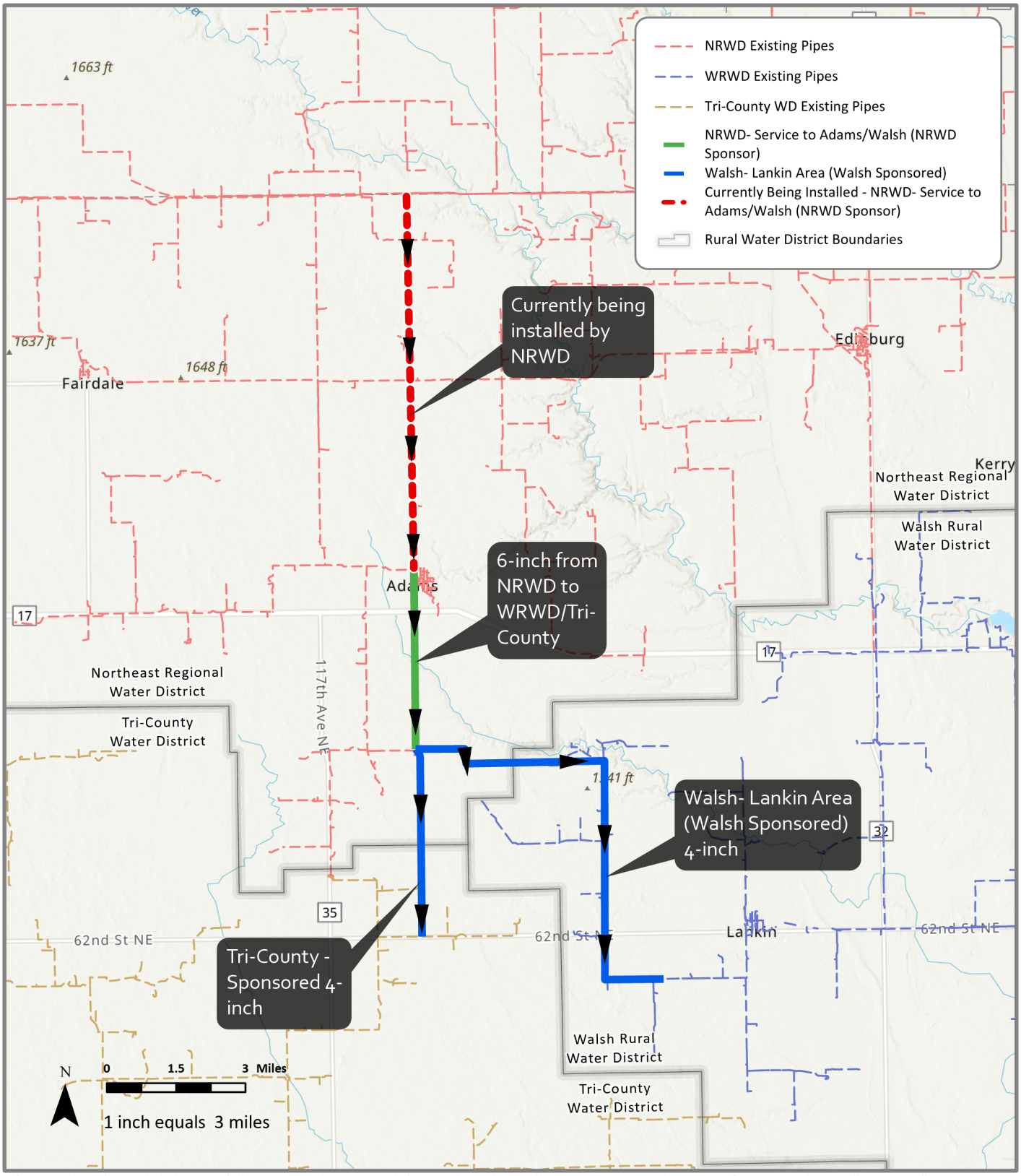
Type	Source	Grant or Loan	State FY1	State FY2	Beyond State FY2	Total Other Sources
State	Cash	N/A	$53,836.00	$0.00	$0.00	$53,836.00
			$53,836.00	**$0.00**	**$0.00**	**$53,836.00**

Project Total

Current Requested Amount:	$161,506.00
Other Funding Sources:	$53,836.00
Total Project:	$215,342.00

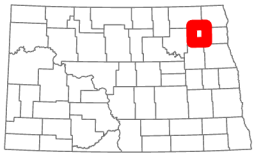
DWR Date Received : 1/7/22

www.ae2s.com | Advanced Engineering and Environmental Services, Inc.



Information depicted may include data unverified by AE2S. Any reliance upon such data is at the user's own risk. AE2S does not warrant this map or its features are either spatially or temporally accurate.

Coordinate System: NAD 1983 HARN StatePlane North Dakota North FIPS 3301 Feet Intl | Edited by: lrengstorf | C:\Data\Projects\Nasuni\W\Walsh RWD\P00125-2017-003 Walsh RWD Budgeted Services\GIS\WalshRWD\WalshArcPro.aprx



Locator Map Not to Scale

SERVICE TO ADAMS/WALSH

WALSH RURAL WATER DISTRICT
Walsh County, ND

Date: 1/4/2022

DELINEATION OF COSTS
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
PLANNING AND EDUCATION
SFN 61801 (10/2021)

DWR Date Received : January 10, 2022

Project:	WRWD: Interconnect to NRWD
Sponsor:	Walsh Rural Water District
Contact:	Brian Reilly
Phone:	701-352-3915
Engineer:	Geoff Slick, AE2S
Phone:	701-746-8087

Total Cost :	$ 2,034,667
Ineligible Cost :	$ -
Eligible Cost :	$ 2,034,667
Local Cost :	$ 508,667

Date: January 4, 2022

	Cost-Share $
	$ 1,526,000
Preconstruction :	$ 161,500
Construction :	$ 1,364,500

Project Type:	**Cost-share %**
Rural Water - Expansion/Improvement	75%

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share $ *
		Construction Costs						
1	3.9%	Mobilization	1	LS	61,295	$ 61,295	75%	$ 45,971
2	42.9%	Water Main 4 in	83250	LF	8	$ 666,000	75%	$ 499,500
3	16.6%	Water Main 6 in	21500	LF	12	$ 258,000	75%	$ 193,500
4	0.6%	Gate Valve	6	EA	1,500	$ 9,000	75%	$ 6,750
5	0.3%	Gate Valve	2	EA	2,000	$ 4,000	75%	$ 3,000
6	0.5%	Curb Stop	8	EA	1,000	$ 8,000	75%	$ 6,000
7	4.6%	Boring - Poly	2400	LF	30	$ 72,000	75%	$ 54,000
8	2.9%	Boring - Poly	1300	LF	35	$ 45,500	75%	$ 34,125
9	2.3%	Boring - Cased	1	LS	35,000	$ 35,000	75%	$ 26,250
10	2.1%	Detailed Tie-In	18	EA	1,800	$ 32,400	75%	$ 24,300
11	2.3%	Seeding	60	NA	600	$ 36,000	75%	$ 27,000
12	0.6%	Meter	1	EA	10,000	$ 10,000	75%	$ 7,500
13	3.2%	Meter - Master	1	EA	50,000	$ 50,000	75%	$ 37,500
14	8.0%	Process Pipes, Values, Fittings	1	EA	125,000	$ 125,000	75%	$ 93,750
15	0.0%		0		-	$ -	75%	$ -
16	0.0%		0		-	$ -	75%	$ -
17	0.0%		0		-	$ -	75%	$ -
18	0.0%		0		-	$ -	75%	$ -
19	0.0%		0		-	$ -	75%	$ -
20	0.0%		0		-	$ -	75%	$ -
21	0.0%		0		-	$ -	75%	$ -
22	0.0%		0		-	$ -	75%	$ -
23	0.0%		0		-	$ -	75%	$ -
24	0.0%		0		-	$ -	75%	$ -
25	0.0%		0		-	$ -	75%	$ -
26	0.0%		0		-	$ -	75%	$ -
		Construction Sub-Total				$ 1,412,195	75%	$ 1,059,146
	10.0%	**Contingency**				$ 141,220	75%	$ 105,915
	76.3%	**Construction Total**				$ 1,553,415	75%	$ 1,165,061
		Preconstruction Costs						
27	9.0%	Final Design	1	NA	140,333	$ 140,333	75%	$ 105,250
28	1.0%	Bidding / Negotiations	1	NA	15,000	$ 15,000	75%	$ 11,250
29	3.9%	Easement Assistance	1	NA	60,000	$ 60,000	75%	$ 45,000
30	0.0%		0		-	$ -	75%	$ -
31	0.0%		0		-	$ -	75%	$ -
	10.6%	**Preconstruction Total**				$ 215,333	75%	$ 161,500
		Construction Engineering Costs						
32	12.0%	Project Inspection	1	NA	185,919	$ 185,919	75%	$ 139,439
33	0.0%		0		-	$ -	75%	$ -
34	0.0%		0		-	$ -	75%	$ -
35	0.0%		0		-	$ -	75%	$ -
36	0.0%		0		-	$ -	75%	$ -
	9.1%	**Construction Engineering Total**				$ 185,919	75%	$ 139,439
		Other Eligible Costs						
37	3.9%	Crop Reimbursement	1	NA	80,000	$ 80,000	75%	$ 60,000
38	0.0%					$ -	75%	$ -
39	0.0%		0		-	$ -	75%	$ -
40	0.0%		0		-	$ -	75%	$ -
41	0.0%		0		-	$ -	75%	$ -
	3.9%	**Other Eligible Total**				$ 80,000	75%	$ 60,000
		In-eligible Costs						
42	0.0%					$ -	0%	$ -
43	0.0%		0		-	$ -	0%	$ -
44	0.0%		0		-	$ -	0%	$ -
45	0.0%		0		-	$ -	0%	$ -
	0.0%	**Other Ineligible Total**				$ -	0%	$ -
	100.0%	**Total**				$ 2,034,667		
		Eligible Total				$ 2,034,667	75%	$ 1,526,000
		Federal or State Funds That Supplant Costs				$ -		
		Eligible Cost Total				$ 2,034,667	75%	$ 1,526,000

* The Cost-share estimate is purely for planning and informational purposes only and does not, in any way, guarantee a financial commitment to any degree, from the State Water Commission.

Life Cycle Cost Analysis Review

Sponsor: Walsh Rural Water District
Project Title: WRWD: Interconnect with NRWD **Date:** January 17, 2022

Explanation of Alternatives:

Do nothing - The do nothing alternative will not address low water pressure, lack of capacity, and loss of service during storms, breaks, etc.

Interconnect with NRWD - Will interconnect Northeast Regional Water District with Walsh Rural Water District and Tri-County Water District.

Improve Existing System - This alternative will build a new pump station west of Lankin, generator at Lankin, increase pipeline diameter west of Lankin, and pipeline to Walsh from Tri-County.

Inputs:

	Do nothing	Interconnect with NRWD (Preferred)	Improve Existing System	
Users Served	2000			
Construction Cost	$0	$2,032,400	$2,289,400	
Annual O & M	$0	$2,500	$15,000	

Details:

Do nothing - The do nothing alternative will not address low water pressure, lack of capacity, and loss of service during storms, breaks, etc.

Interconnect with NRWD - Will interconnect Northeast Regional Water District with Walsh Rural Water District and Tri-County Water District. Install 6-inch service line from Adams and split to 4-inch service lines to Walsh and Tri-County.

Improve Existing System - This alternative will build a new pump station west of Lankin, includes a generator at Lankin, increases pipeline diameter west of Lankin, and includes a pipeline to Walsh from Tri-County.

Model Function:

The economic model appears to have functioned properly. The results are deemed to be reliable and repeatable with the inputs provided by the project sponsor.

LCCA Model Results:

Scenario Analysis - Present Value Life Cycle Cost Summary

Present Value	Do nothing	Interconnect with NRWD (Preferred)	Improve Existing System	
Capital Costs	$0	$2,007,000	$2,262,000	
O&M	$0	$67,000	$407,000	
Repair, Rehab, Replacement	$0	$89,000	$225,000	
Salvage Value	$0	$247,000	$251,000	
Total PVC	$0	**$1,916,000**	$2,643,000	
PV Cost Per User	$0	**$958**	**$1,322**	

Current Water Rate (Cost Per 5000g)		**$93**			
Comparable Water Rate		**$75**			
Total Municipal Service Users		2,000	2,000	2,000	
Cost-Share Percent		75%	75%	75%	
	Local Share	$0	$501,750	$565,500	
	Other Funding	$0	$0	$0	
	Total Local	$0	$501,750	$565,500	
Payment Per User With Cost-Share		**$0.00**	**$1.27**	**$1.43**	
	Local Share	$0	$2,007,000	$2,262,000	
	Other Funding	$0	$0	$0	
	Total Local	$0	$2,007,000	$2,262,000	
Payment Per User Without Cost-Share		**$0.00**	**$5.08**	**$5.72**	

Explanation of Results:

The net present value of the preferred alternative of Interconnection with NRWD is $1,916,000, which is $727,000 less than the Improve Existing System alternative. The present value per user of the preferred alternative is $958, which equates to $1.27 per user per month with SWC cost-share participation, and $5.08 without SWC participation.

Other Comments:

LCCA Version Version 1.2021-7.26

CAPITAL IMPROVEMENT PLAN (CIP)
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
PLANNING AND EDUCATION DIVISION
SFN 61938 (7/2021)

System: Walsh Rural Water District
Date: 01/04/22

Population: 2,800
Users: 1,400

ASSET	UNITS	UNIT COST	QTY	RESERVE REPLACEMENT %	REPLACEMENT COST	AVERAGE LIFE (YRS)	ANNUAL RESERVE	MONTHLY RESERVE	MONTHLY RESERVE PER CUSTOMER
Existing Project CIP Costs									
Expansion to Hoople/Crystal	1	##########	1	25.00%	$375,000	75	$5,000	$417	$0.30
SUBTOTAL Existing CIP Costs					$375,000		$5,000	$417	$0.30
New Project CIP Costs									
WRWD: Interconnect with NR	1	##########	1	25.00%	$508,792	75	$6,784	$565	$0.40
SUBTOTAL New CIP Costs					$508,792		$6,784	$565	$0.40
TOTAL Existing and New Project CIP					$883,792		$11,784	$982	$0.70

	TOTAL RESERVES	ANNUAL RESERVE	MONTHLY RESERVE	MONTHLY RESERVE PER CUSTOMER
Current:	$281,000	$50,000	$4,166.67	$2.98
Adjustment:	$602,792	$0	$0	$0.00

	Monthly Ave Gal/user	Monthly $/kgal
Required	5,000	$0.14
Current	5,000	$0.60
Adjustment	5,000	$0.00

Report Prepared by (Title): _____
Date: _____

Notes:

Instructions
1 - Fill in colored items
2 - Enter Existing asset project CIP costs
3 - Enter New asset project CIP costs
4 - Enter current total reserves and annual reserve

Water Development Plan: Yes - 2021
Plan Priority: Moderate

I2

20100 - 2021 System Improvements Phase 2

Application Details

Funding Opportunity:
19214-2022 Infrastructure Request

Funding Opportunity Due Date: Dec 31, 2022 3:00 PM

Program Area:
Funding for Infrastructure in ND - FIND

Status: Under Review

Stage: Final Application

Initial Submit Date: Jan 7, 2022 2:57 PM

Initially Submitted By: Abby Ritz

Last Submit Date:

Last Submitted By:

Contact Information

Primary Contact Information

Active User*: Yes

Type: External User

Name: Salutation Abby
First Name
Middle Name Ritz
Last Name

Title:

Email*: abby.ritz@ae2s.com

Address*: 1815 Schafer Street, Suite 301

AE2S

Organization Information

Status*: Approved

Name*:
McLean Sheridan Rural Water District

Organization Type*: Political Subdivision

Tax Id: McLean Sheridan Rura

Organization Website:

Address*: 987 17th Ave NW

	Bismarck	North Dakota	
	City	State/Province	
58501			
Postal Code/Zip			
Phone*:	701-221-0530	Ext.	
	Phone		
	###-###-####		
Fax:	###-###-####		
Comments:			

	Turtle Lake	North Dakota	
	City	State/Province	
58575-____			
Postal Code/Zip			
Phone*:	701-448-2686	Ext.	
	###-###-####		
Fax:	###-###-####		
Benefactor:			
Vendor ID:			
PeopleSoft Supplier ID:			
Comments:			
Location Code:			
SAM.gov Entity ID:			
SAM.gov Name:			
SAM.gov Entity ID Expiration Date:			
State Issued ID:			
Category #:			
Year Begin:			
Year Closed:			
NCES#:			
Restricted Indirect Cost Rate:	0.0%		

Unrestricted Indirect Cost Rate: 0.0%

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study Name*: System Expansion Phase 2

Sponsor(s)*: McLean Sheridan Rural Water District

County*: McLean

City*: Turtle Lake

Description of Request*: New

If Study, What Type:

If Project/Program, What Type: Rural Water Supply

Jurisdictions/Stakeholders Involved*:

McLean Sheridan Rural Water District, City of Turtle Lake, City of Cole Harbor, City of McClusky

Specific Needs Addressed By the Project, Program or Study*:

Low flow and system pressure during peak water demand periods, high demand for new rural water service, and limited treatment capacity at the MSRWD water treatment plant.

Description of Problem or Need and How Project Addresses that Problem or Need.

Description of Problem*:

The MSRWD has received numerous requests for rural water service throughout its service territory. In addition, there are several areas within the existing system that experience low flow and pressure during peak water demand periods. Finally, the MSRWD water treatment plant near Turtle Lake is limited in treatment capacity and has no redundancy of critical treatment process.

For this project,

Choose City, County or Water District*: Water District

What is the Current Estimated Population?*:	3573

For this project,

What is the Benefited Population?*:	3573
Has Feasibility Study Been Completed?*:	No
Has Engineering Design Been Completed?*:	Yes
Have Assessment Districts Been Formed?*:	N/A
Have Land or Easements Been Acquired?*:	Yes
Has Sediment Analysis For Reconstruction Of An Existing Drain Been Completed?*:	N/A
Extraterritorial Jurisdiction?*:	No
Have You Applied For Any Federal Permits?*:	N/A
If Yes or Ongoing, Please Explain (include type/number):	
Have You Applied for any State Permits?*:	Ongoing

If Yes or Ongoing, Please Explain (include type/number):

No permits have been secured at this time. The District is currently applying for a railroad crossing permit.

If Yes or Ongoing, Please Explain (include type/number):

Have You Applied for any Local Permits?*: No

If Yes or Ongoing, Please Explain (include type/number):

Briefly explain the level of review the Project/Program/Study has undergone.

Level Review*:

This project is part of a multi-phase improvement project that District began planning in the summer of 2017.

Do You Expect Any Obstacles To Implementation (i.e. problems with land acquisition, permits, funding, local opposition, environmental concerns, etc.)?

Obstacles*: No

Have you received, or do you anticipate receiving federal funding?

Federal Funding*: No

Implementation Timelines

Study*: 09/2021
Month/Year (00/0000)

Design*: 11/2021
Month/Year (00/0000)

Bid*: 05/2022
Month/Year (00/0000)

Construction Start*: 06/2022
Month/Year (00/0000)

Construction Completion*: 12/2023
Month/Year (00/0000)

Explain Additional Timeline Issues*:

No timeline issues anticipated. Local cost share (DWSRF) was approved at the Dec. 16th Advisory Committee Meeting.

Certification

Submitted by*: Abby Ritz 01/07/2022
First Name Last Name Date

Address*:	1815 Schafer Street, Suite 301 Address Line 1 Address Line 2 Bismarck North Dakota 58501-1217 City State Zip Code
Telephone Number*:	701-221-0530
Sponsor Email*:	abby.ritz@ae2s.com
Consulting Engineer*:	Brett Morlok
Engineer Telephone Number*:	701-221-0530
Engineer Email*:	Brett.Morlok@AE2S.com

This section needs to be completed by the project sponsor.
I certify that, to the best of my knowledge, the provided information is true and accurate.

Certify*:	Yes
Authorized Individual*:	Abby Ritz 01/07/2022 First Name Last Name Date

Documentation

Documentation

Project Specific Map
(Including an inset map of location within state.)
CLICK HERE **to see examples.**

Project Specific Map*:	MSRWD Phase 2 Overall System Map 20220106.pdf
Are You Seeking Department of Water Resources Cost-Share?*:	Yes

CLICK HERE **for SFN 61801 Delineation of Costs.**

Delineation of Costs SFN 61801:	sfn_61801_delineation_of_cost 3.xlsx
Type of Request:	Construction
Signed Plans and Specifications For Bidding:	Phase 2 Plan Set - FINAL Esig.pdf
Water Supply Projects?:	Yes

CLICK HERE **for Life Cycle Cost Analysis Instructions.**

Life Cycle Cost Analysis: life_cycle_cost_analysis_worksheet 5.xlsx

CLICK HERE **for SFN 61938 Capital Improvement Plan.**

Capital Improvement Plan SFN 61938: MSRWD sfn_61938_capital_improvement_plan.xlsx

Rural Flood Control?: No

Drain Reconstructions?: No

Flood Recovery Property Acquisition?: No

Community Flood Control, Rural Flood Control, Bank Stabilization, or Snag & Clear Project With Total Cost of $200,000 or More?: No

Feasibility/Engineering Study for the Proposed Project or Other Applicable Documents: No

Engineering Total Cost of $35,000 or More?: Yes

Engineering Selection Documentation:

Sources

Funding Amount Requested

State FY1	State FY2	Beyond State FY2	Total Cost Source	Type	Term	Interest Rate
$0.00	$3,602,500.00	$3,602,500.00	$7,205,000.00		0.00	0.00
$0.00	**$3,602,500.00**	**$3,602,500.00**	**$7,205,000.00**			

Other Funding Sources

Type	Source	Grant or Loan	State FY1	State FY2	Beyond State FY2	Total Other Sources
State	DWSRF	Loan	$223,333.00	$1,200,834.00	$1,200,833.00	$2,625,000.00
State	SWC (Pre-Construction)	Grant	$670,000.00	$0.00	$0.00	$670,000.00
			$893,333.00	**$1,200,834.00**	**$1,200,833.00**	**$3,295,000.00**

Project Total

Current Requested Amount:	$7,205,000.00
Other Funding Sources:	$3,295,000.00
Total Project:	$10,500,000.00

McLean-Sheridan Water District

987 17th. Avenue NW
Turtle Lake, ND 58575-9649
E-mail msrwater@westriv.com
Phone: 701-448-2686
Fax: 701-448-2315

January 7th, 2021

Andrea Travnicek, Ph. D., Secretary
North Dakota State Water Commission
900 E Boulevard Ave
Bismarck ND 58505-0850

Re: McLean Sheridan Rural Water District (MSRWD)
2021 System Improvements Phase 2
Cost Share Request for 2021-2023 Biennium

Dear Mrs. Travnicek:

Since authorization of Pre-Construction funding for the 2021 System Improvements Project we have been hard at work on the project design. Plans and specifications are complete, and a bid opening is planned for mid-February 2022. We are finalizing the SRF environmental review and anticipate a FONSI issued in mid-February. The project is shovel ready and we look forward to starting construction this spring.

The overall project approach has been revised from what was submitted as part of the Pre-Construction funding request. Due to increased material and labor costs, the estimated project cost expanded beyond the original project budget. To stay within the project budget, we decided to prioritize the pipeline and user expansion components and delay construction of the water treatment plant (WTP) expansion. With some minor operational adjustments, we are confident that the current WTP can meet system water demands for the next two years. We will continue with the design of the WTP expansion through the summer of 2022 and anticipate requesting construction cost share during the next biennium as part of a separate Phase 3 expansion if we do indeed exceed our budgetary estimates. Phase 3 will also include additional user expansions that we are currently working on. If additional money is available near the end of the current biennium we may request additional funding at that time.

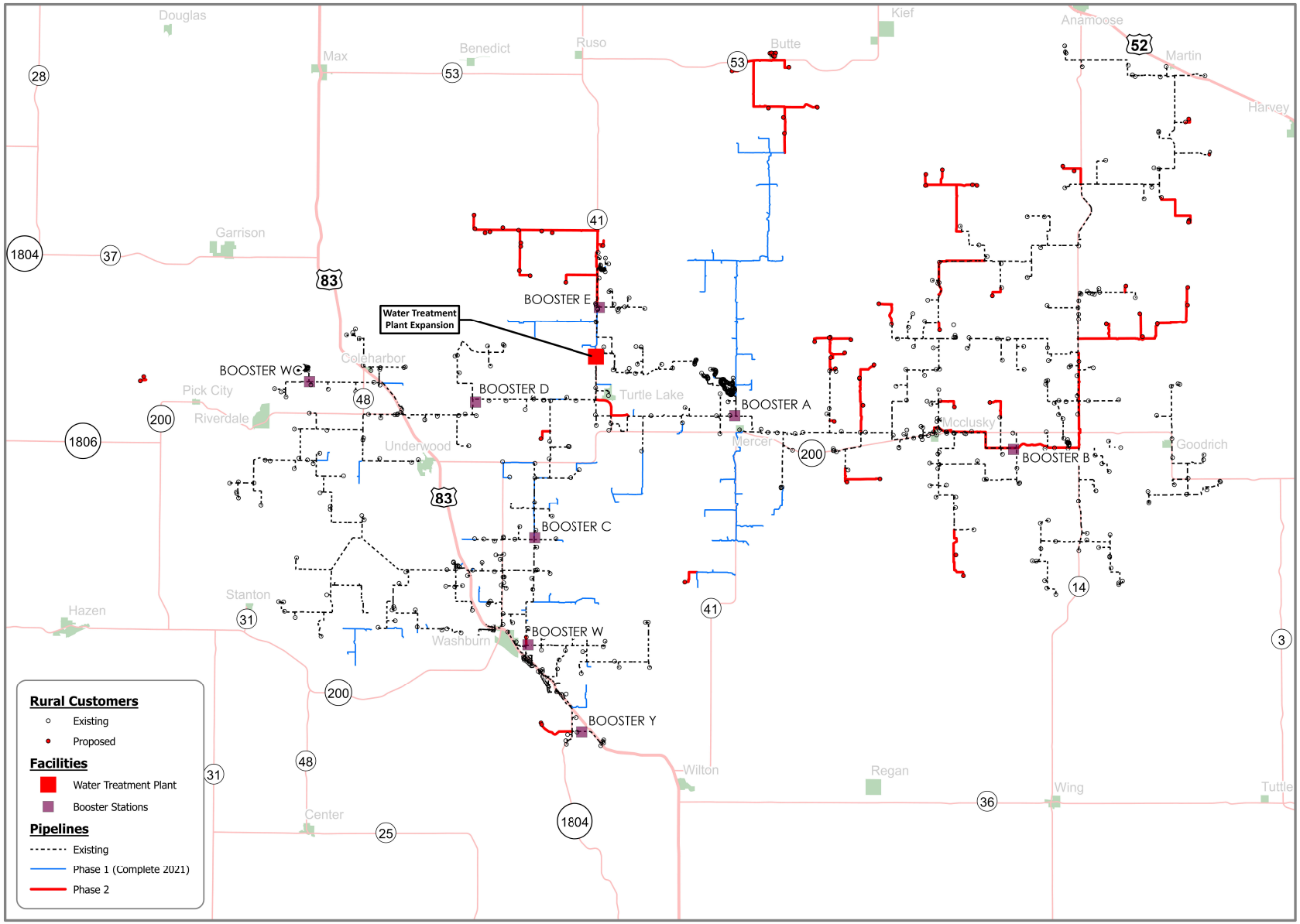
The Phase 2 project budget is $10.5 million as shown in the detailed cost breakdown. At 75%, the total SWC cost share will be $7,875,000. $670,000 in pre-construction funding was approved by the State Water Commission at the August 2021 meeting. At this time, we are requesting approval of the remaining construction cost share totaling $7,205,000.

Thank you very much for your assistance with this important project for the McLean Sheridan Rural Water District. If you have any questions, please do not hesitate to contact me at 701-448-2686 or Brett Morlok with Advanced Engineering and Environmental Services, Inc. at 701-221-0530.

Respectfully submitted,

Ann Oberg
Manager

DWR Date Received : 1/7/22



N

0 3 6

Miles

1 inch equals 6 Miles

Locator Map Not to Scale

Turtle Lake
McLean County, ND

Overall System Map
Phase II Expansion Areas

MSRWD - PHASE II SYSTEM EXPANSION AND IMPROVEMENTS

MSRWD

Date: 1/6/2022

AE2S

www.ae2s.com | Advanced Engineering and Environmental Services, Inc.

Information depicted may include data unverified by AE2S. Any reliance upon such data is at the user's own risk. AE2S does not warrant this map or its features are either spatially or temporally accurate.

Coordinate System: NAD 1983 StatePlane North Dakota North FIPS 3301 Feet | Edited by: ASchlagel | C:\Users\ASchlagel\AE2S\MSRWD - 2019 Rural Water - 00215-2016-002 - Documents\GIS\Overall System Map\MSRWD Overall Map\MSRWD Overall Map.aprx | MSWD_Overall_Phase 2 Update

DELINEATION OF COSTS
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
PLANNING AND EDUCATION
SFN 61801 (10/2021)

DWR Date Received : January 07, 2022

Project:	2021 System Improvements Phase 2
Sponsor:	McLean Sheridan Rural Water District
Contact:	Ann Oberg, System Manager
Phone:	701-448-2686
Engineer:	Brett Morlok, AE2S
Phone:	701-221-0530

Total Cost :	$ 10,500,000
Ineligible Cost :	$ -
Eligible Cost :	$ 10,500,000
Local Cost :	$ 2,625,000

Date: January 6, 2022

Cost-Share $
$ 7,875,000

Preconstruction : $ 670,000
Construction : $ 7,205,000

Project Type:	**Cost-share %**
Rural Water - Expansion/Improvement	75%

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share $ *
		Construction Costs						
1	6.6%	Mobilization	1	LS	566,000.00	$ 566,000	75%	$ 424,500
2	26.5%	Water Main 2 in	418561	LF	5.40	$ 2,260,229	75%	$ 1,695,172
3	9.2%	Water Main 4 in	124924	LF	6.30	$ 787,021	75%	$ 590,266
4	15.3%	Water Main 6 in	109403	LF	11.88	$ 1,299,708	75%	$ 974,781
5	2.9%	Water Main 8 in	15350	LF	16.20	$ 248,670	75%	$ 186,503
6	26.3%	Pipeline Appurtenances	1	LS	2,238,833.00	$ 2,238,833	75%	$ 1,679,125
7	4.0%	Meter - Frost Free	76	EA	4,500.00	$ 342,000	75%	$ 256,500
8	0.0%					$ -	75%	$ -
9	0.0%					$ -	75%	$ -
10	0.0%				-	$ -	75%	$ -
11	0.0%				-	$ -	75%	$ -
12	0.0%				-	$ -	75%	$ -
13	0.0%				-	$ -	75%	$ -
14	0.0%					$ -	75%	$ -
15	0.0%					$ -	75%	$ -
16	0.0%					$ -	75%	$ -
17	0.0%					$ -	75%	$ -
18	0.0%				-	$ -	75%	$ -
19	0.0%				-	$ -	75%	$ -
20	0.0%				-	$ -	75%	$ -
21	0.0%				-	$ -	75%	$ -
22	0.0%				-	$ -	75%	$ -
23	0.0%				-	$ -	75%	$ -
24	0.0%				-	$ -	75%	$ -
25	0.0%				-	$ -	75%	$ -
26	0.0%				-	$ -	75%	$ -
		Construction Sub-Total				$ 7,742,461	75%	$ 5,806,846
	10.0%	**Contingency**				$ 774,246	75%	$ 580,685
	81.1%	**Construction Total**				$ 8,516,707	75%	$ 6,387,531
		Preconstruction Costs						
27	1.8%	Preliminary Design	1	LS	155,000.00	$ 155,000	75%	$ 116,250
28	6.4%	Final Design	1	LS	542,000.00	$ 542,000	75%	$ 406,500
29	1.1%	Archeological Study	1	LS	95,000.00	$ 95,000	75%	$ 71,250
30	0.0%	Ads for Construction	1	LS	500.00	$ 500	75%	$ 375
31	0.0%		1	LS	-	$ -	75%	$ -
	7.5%	**Preconstruction Total**				$ 792,500	75%	$ 594,375
		Construction Engineering Costs						
32	10.9%	Project Inspection	1	LS	925,000.00	$ 925,000	75%	$ 693,750
33	1.2%	Construction Contract Management	1	LS	100,000.00	$ 100,000	75%	$ 75,000
34	0.7%	Post-Construction / Warranty	1	LS	59,747.00	$ 59,747	75%	$ 44,810
35	0.0%		0		-	$ -	75%	$ -
36	0.0%		0		-	$ -	75%	$ -
	10.3%	**Construction Engineering Total**				$ 1,084,747	75%	$ 813,560
		Other Eligible Costs						
37	0.9%	Miscellaneous	1	LS	91,046.00	$ 91,046	75%	$ 68,285
38	0.1%	Permit Fees	1	LS	15,000.00	$ 15,000	75%	$ 11,250
39	0.0%		0		-	$ -	75%	$ -
40	0.0%		0		-	$ -	75%	$ -
41	0.0%		0		-	$ -	75%	$ -
	1.0%	**Other Eligible Total**				$ 106,046	75%	$ 79,535
		In-eligible Costs						
42	0.0%					$ -	0%	$ -
43	0.0%					$ -	0%	$ -
44	0.0%		0		-	$ -	0%	$ -
45	0.0%		0		-	$ -	0%	$ -
	0.0%	**Other Ineligible Total**				$ -	0%	$ -
	100.0%	**Total**				$ 10,500,000		
		Eligible Total				$ 10,500,000	75%	$ 7,875,000
		Federal or State Funds That Supplant Costs				$ -		
		Eligible Cost Total				$ 10,500,000	75%	$ 7,875,000

* The Cost-share estimate is purely for planning and informational purposes only and does not, in any way, guarantee a financial commitment to any degree, from the State Water Commission.

Life Cycle Cost Analysis Review

Sponsor: McLean Sheridan Rural Water District
Project Title: 2021 System Expansion and Improvements **Date:** January 17, 2022

Explanation of Alternatives:

System Expansion (Preferred) - Add approximately 80 new rural users and expand system capacity by adding parallel pipes.

No Build - Under this alternative, the District would not expand its system.

Inputs:

	System Expansion (Preferred)	No Build		
Users Served	1063			
Construction Cost	$10,499,800	$0		
Annual O & M	$15,000	$0		

Details:

System Expansion (Preferred) - Add approximately 80 new rural users and expand system capacity by adding parallel pipes. This project no longer includes WTP capacity expansion, which is being split into a seperate project for future consideration.

No Build - Under this alternative, the District would not expand its system.

Model Function:

The economic model appears to have functioned properly. The results are deemed to be reliable and repeatable with the inputs provided by the project sponsor.

LCCA Model Results:

Scenario Analysis - Present Value Life Cycle Cost Summary

Present Value	System Expansion	No Build		
Capital Costs	$10,372,000			
O&M	$407,000			
Repair, Rehab, Replacement	$4,364,000			
Salvage Value	$817,000			
Total PVC	**$14,326,000**			
PV Cost Per User	**$13,477**			

Current Water Rate (Cost Per 5000g)		**$121**
Comparable Water Rate		**$75**
Total Service Users		1,063
Cost-Share Percent		75%
	Local Share	$2,593,000
	Other Funding	$0
	Total Local	$2,593,000
Payment Per User With Cost-Share		**$12.34**
	Local Share	$10,372,000
	Other Funding	$0
	Total Local	$10,372,000
Payment Per User Without Cost-Share		**$49.36**

Explanation of Results:

The preferred project is expanding and adding parallel piping. The present value cost of this alternative is $14,326,000. The present value cost per user distributed across 1,063 system users for this project is $13,477. The monthly user cost of the local share with SWC cost-share participation is $12.34 per month compared to $49.36 without SWC cost-share participation.

Other Comments:

The Present Value Cost per user is distributed across all 1,063 connections and does not diretly address the cost of adding new users.

LCCA Version Version 1.2021-7.26

CAPITAL IMPROVEMENT PLAN (CIP)
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
PLANNING AND EDUCATION DIVISION
SFN 61938 (7/2021)

System: McLean Sheridan Rural Water District
Date: 08/26/21

Population: 3,070
Users: 1,150

ASSET	UNITS	UNIT COST	QTY	RESERVE REPLACEMENT %	REPLACEMENT COST	AVERAGE LIFE (YRS)	ANNUAL RESERVE	MONTHLY RESERVE	MONTHLY RESERVE PER CUSTOMER
Existing Project CIP Costs									
Phase I Rural Distribution	1	$10.00	528,000	50.00%	$2,640,000	75	$35,200	$2,933	$2.55
SUBTOTAL Existing CIP Costs					$2,640,000		$35,200	$2,933	$2.55
New Project CIP Costs									
Phase II Rural Distribution	1	$5,720,000.00	1	50.00%	$2,860,000	75	$38,133	$3,178	$2.76
MSRWD WTP Impr	1	$2,750,000.00	1	50.00%	$1,375,000	30	$45,833	$3,819	$3.32
Blue Flint Distribution Impr.	1	$10,273,000.00	1	50.00%	$5,136,500	75	$68,487	$5,707	$4.96
Washburn WTP Impr	1	$2,530,000.00	1	50.00%	$1,265,000	30	$42,167	$3,514	$3.06
SUBTOTAL New CIP Costs					$10,636,500		$194,620	$16,218	$14.10
TOTAL Existing and New Project CIP					$13,276,500		$229,820	$19,152	$16.65

	TOTAL RESERVES	ANNUAL RESERVE	MONTHLY RESERVE	MONTHLY RESERVE PER CUSTOMER
Current:	$1,027,000	$250,000	$20,833.33	$18.12
Adjustment:	$12,249,500	$0	$0	$0.00

	Monthly Ave Gal/user	Monthly $/kgal
Required	24,300	$0.69
Current	24,300	$0.75
Adjustment	24,300	$0.00

Report Prepared by (Title): Brett Morlok, Project Manager
Date: 1/4/21

Notes: MSRWD serves a number of bulk users including the Cities of McClusky, Turtle Lake, and Cole Harbor. Blue Flint Ethanol plant would also be a bulk user, increasing MSRWD's annual water usage from 100,000,000 gallons per year to 335,000,000 gallons per year. The average usage includes all bulk customers and results in an exaggerated usage per month/user in this analysis as reflected in the table above.

Instructions
1 - Fill in colored items
2 - Enter Existing asset project CIP costs
3 - Enter New asset project CIP costs
4 - Enter current total reserves and annual reserve

DWR Date Received : 1/7/22

I3

19643 - Water System Improvement District No. 2021

Application Details

Funding Opportunity:	19214-2022 Infrastructure Request
Funding Opportunity Due Date:	Dec 31, 2022 3:00 PM
Program Area:	Funding for Infrastructure in ND - FIND
Status:	Under Review
Stage:	Final Application
Initial Submit Date:	Jan 7, 2022 11:02 AM
Initially Submitted By:	Melissa Rotzien
Last Submit Date:	
Last Submitted By:	

Contact Information

Primary Contact Information

Active User*:	Yes
Type:	External User
Name:	Salutation Melissa (First Name) Middle Name Rotzien (Last Name)
Title:	
Email*:	melissa.rotzien@mooreengineeringinc.com
Address*:	4503 Coleman Street, Suite 105
	Bismarck (City) North Dakota (State/Province) 58503 (Postal Code/Zip)
Phone*:	701-751-8374 Ext. (Phone)
	###-###-####
Fax:	###-###-####
Comments:	

Organization Information

Status*:	Approved
Name*:	McLean Sheridan Rural Water District
Organization Type*:	Political Subdivision
Tax Id:	McLean Sheridan Rura
Organization Website:	
Address*:	987 17th Ave NW

Turtle Lake North Dakota 58575-____
City State/Province Postal Code/Zip

Phone*: 701-448-2686 Ext.
###-###-####

Fax: ###-###-####

Benefactor:

Vendor ID:

PeopleSoft Supplier ID:

Comments:

Location Code:

SAM.gov Entity ID:

SAM.gov Name:

SAM.gov Entity ID Expiration Date:

State Issued ID:

Category #:

Year Begin:

Year Closed:

NCES#:

Restricted Indirect Cost Rate: 0.0%

Unrestricted Indirect Cost Rate: 0.0%

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study Name*: Water System Improvement District No. 2021

Sponsor(s)*: McLean-Sheridan Rural Water District

County*: Sheridan

City*: McClusky

Description of Request*: New

If Study, What Type:

If Project/Program, What Type: Rural Water Supply

Jurisdictions/Stakeholders Involved*:

McLean-Sheridan Rural Water District (MSRWD), City of McClusky, and their water users are affected by the water tank storage updates.

Specific Needs Addressed By the Project, Program or Study*:

An engineering study was completed including a water system hydraulic model. Several alternatives were evaluated. This tank is the recommended alternative from the study effort.

Description of Problem or Need and How Project Addresses that Problem or Need.

Description of Problem*:

The City of McClusky's storage tank has reached its useful life. The McLean-Sheridan RWD system needs additional storage for peak demands.

This tank will be used by both systems to provide adequate storage and help ensure adequate water is available to both systems. It will be constructed at an elevation that will correct existing pressure issues in the city system. Having this storage available will help the peak demands in the Rural Water system.

For this project,

Choose City, County or Water District*: Water District

What is the Current Estimated Population?*: 380

For this project,

What is the Benefited Population?*: 380

Has Feasibility Study Been Completed?*: Yes

Has Engineering Design Been Completed?*: Yes

Have Assessment Districts Been Formed?*: Ongoing

Have Land or Easements Been Acquired?*: Ongoing

Has Sediment Analysis For Reconstruction Of An Existing Drain Been Completed?*: N/A

Extraterritorial Jurisdiction?*: N/A

Have You Applied For Any Federal Permits?*: N/A

If Yes or Ongoing, Please Explain (include type/number):

Have You Applied for any State Permits?*: Ongoing

If Yes or Ongoing, Please Explain (include type/number):

Construction plan submitted to North Dakota Department of Environmental Quality for review/approval.

If Yes or Ongoing, Please Explain (include type/number):

Have You Applied for any Local Permits?*: N/A

If Yes or Ongoing, Please Explain (include type/number):

Briefly explain the level of review the Project/Program/Study has undergone.

Level Review*:

Project design has had many discussions with MSRWD board, MSRWD operators, City council meetings, City public works, feedback from public meetings, engineering review, and will be submitted to NDDEQ for review and approval.

Do You Expect Any Obstacles To Implementation (i.e. problems with land acquisition, permits, funding, local opposition, environmental concerns, etc.)?

Obstacles*: No

Have you received, or do you anticipate receiving federal funding?

Federal Funding*: No

Implementation Timelines

Study*: 10/2021
Month/Year (00/0000)

Design*: 11/2021
Month/Year (00/0000)

Bid*:	12/2021 Month/Year (00/0000)
Construction Start*:	6/2022 Month/Year (00/0000)
Construction Completion*:	9/2023 Month/Year (00/0000)

Explain Additional Timeline Issues*:

Contract includes a Milestone for the water transmission line to be completed by end of October 2022. All other work including tower and tower site work has Sept 2023 completion date.

Certification

Submitted by*:	Ann Oberg 01/07/2022 First Name Last Name Date
Address*:	987 17th Ave NW Address Line 1 Address Line 2 Turtle Lake North Dakota 58575-0000 City State Zip Code
Telephone Number*:	701-448-2686
Sponsor Email*:	msrwater@westriv.com
Consulting Engineer*:	Moore Engineering
Engineer Telephone Number*:	701-751-8360
Engineer Email*:	melissa.rotzien@mooreengineeringinc.com

This section needs to be completed by the project sponsor.
I certify that, to the best of my knowledge, the provided information is true and accurate.

Certify*:	Yes
Authorized Individual*:	Ann Oberg 01/07/2022 First Name Last Name Date

Documentation

Documentation

Project Specific Map
(Including an inset map of location within state.)
CLICK HERE **to see examples.**

Project Specific Map*:	20862_Exhibit_Tower_20210630.pdf
Are You Seeking Department of Water Resources Cost-Share?*:	Yes

CLICK HERE **for SFN 61801 Delineation of Costs.**

Delineation of Costs SFN 61801:	20862_Delineation of Costs.xlsx
Type of Request:	Construction
Signed Plans and Specifications For Bidding:	20862_BidUploadFile.pdf
Water Supply Projects?:	Yes

CLICK HERE **for Life Cycle Cost Analysis Instructions.**

Life Cycle Cost Analysis:	20862_LCCA Worksheet.xlsx

CLICK HERE **for SFN 61938 Capital Improvement Plan.**

Capital Improvement Plan SFN 61938:	20862_Capital_Improvement_Plan.xlsx
Rural Flood Control?:	No

Drain Reconstructions?:	No
Flood Recovery Property Acquisition?:	No
Community Flood Control, Rural Flood Control, Bank Stabilization, or Snag & Clear Project With Total Cost of $200,000 or More?:	No
Feasibility/Engineering Study for the Proposed Project:	Yes
Feasibility/Engineering Study Material:	20862_Water Tank Facility Plan_20210430.pdf
Engineering Total Cost of $35,000 or More?:	Yes
Engineering Selection Documentation:	20862_Engr Selection_20210716.pdf

Sources

Funding Amount Requested

State FY1	State FY2	Beyond State FY2	Total Cost Source	Type	Term	Interest Rate
$507,500.00	$507,500.00	$0.00	$1,015,000.00		0.00	0.00
$507,500.00	**$507,500.00**	**$0.00**	**$1,015,000.00**			

Other Funding Sources

Type	Source	Grant or Loan	State FY1	State FY2	Beyond State FY2	Total Other Sources
State	Dept. of Water Resources	Grant	$1,522,500.00	$1,522,500.00	$0.00	$3,045,000.00
			$1,522,500.00	**$1,522,500.00**	**$0.00**	**$3,045,000.00**

Project Total

Current Requested Amount:	$1,015,000.00
Other Funding Sources:	$3,045,000.00
Total Project:	$4,060,000.00

McLean-Sheridan Rural Water District

987 17th. Avenue NW
Turtle Lake, ND 58575-9649

E-mail msrwater@westriv.com
Website: www.msrwater.com

Phone: 701-448-2686
Fax: 701-448-2315

January 7, 2022

Andrea Travnicek, Ph.D
Director
Department of Water Resources
900 East Boulevard Avenue, Dept. 770
Bismarck, North Dakota 58105-0850

Subject: Request for Water Tower Improvements
McLean Sheridan Rural Water District/City of McClusky, ND

The McLean Sheridan Rural Water District is requesting Department of Water Resources funding for Construction and Construction Engineering for a new 400,000-gallon water storage tower and the piping to connect it to the existing McClusky water system.

The existing elevated water storage tank in McClusky, constructed in 1912, has reached the end of its useful life. Additionally, the existing tank does not provide enough storage or pressure to the City, McLean Sheridan Rural Water System is also short of water storage. The MSRWD and the City of McClusky have agreed to share water storage to make the project more economically feasible. Water modeling was used to size mains leading to McClusky and to locate mains within the system that allow the system to continue to function appropriately with the new tank.

Total preconstruction engineering costs were previously funded at a 75% Cost Share. Preconstructions Engineering costs totaled $365,000 ($273,750 Cost Share).

Our project was recently bid, and we are waiting to award the project once we receive approval from the Department of Water Resources and NDDEQ Drinking Water SRF. A detailed Engineer's Statement of cost for the project totals $4,060,000. We are respectfully requesting funding on this project for all eligible Construction and Construction Engineering costs to be funded at 75% cost share from the Department of Water Resources. The remaining 25% will be a Local Share funded by the McLean Sheridan Rural Water District and the City of McClusky.

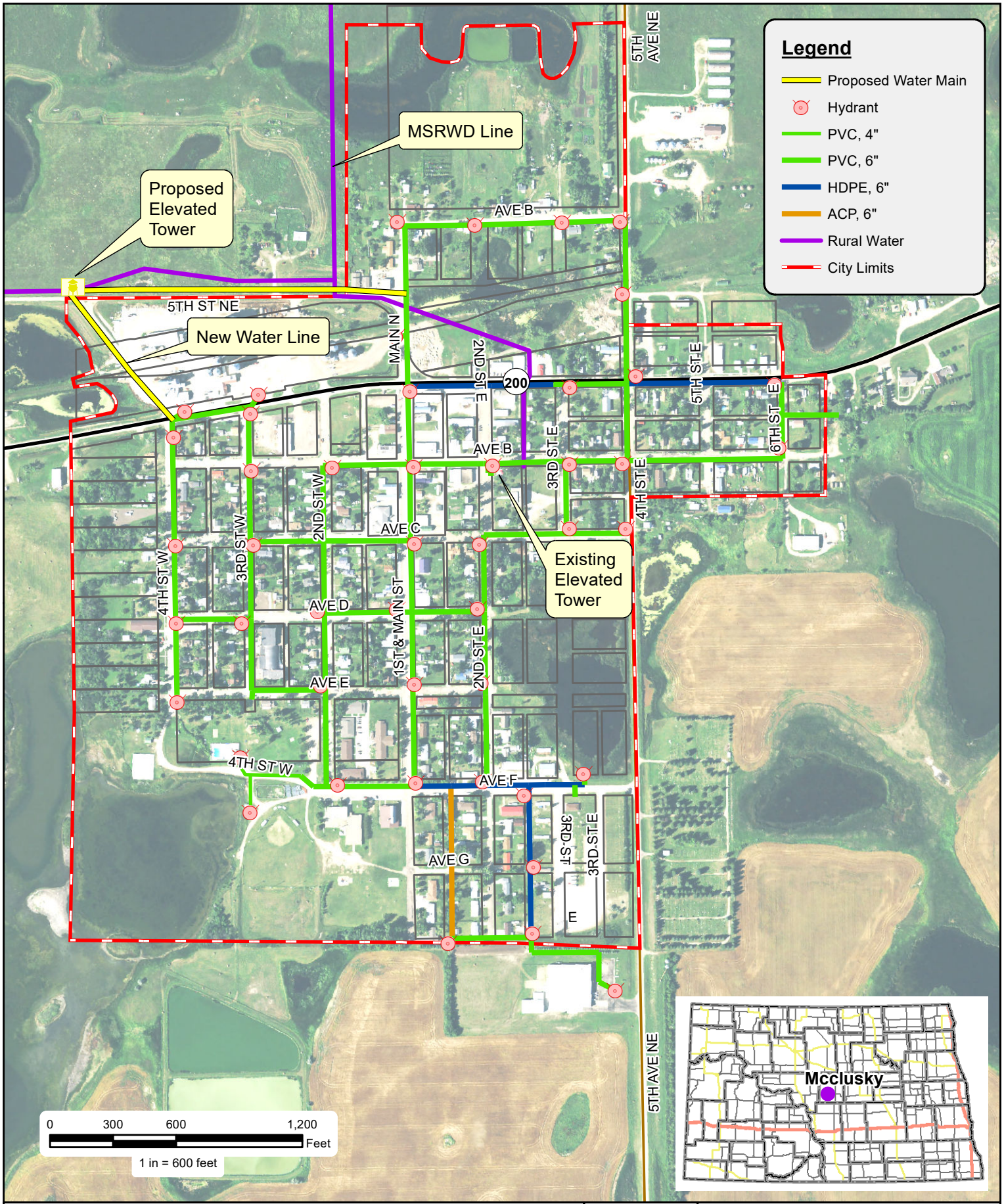
Remaining Construction and Construction Engineering costs total $3,695,000. Of that, we are requesting 75% Cost Share, or $2,771,250.

If you have any questions regarding the applications, please contact Ann Oberg (McLean Sheridan Rural Water District) at (701) 448-2686 or Tom Klabunde (Engineer) at (701) 751-8381. Your time and efforts with this program are greatly appreciated!

Sincerely,

Ann Oberg
McLean Sheridan Rural Water District
Enclosures

DWR Date Received : 1/7/22



NEW TANK - NW LOCATION
MSRW SYSTEM NEAR McCLUSKY
McCLUSKY, NORTH DAKOTA

Created By: KMV Date Created: 03/11/20 Date Saved: 06/29/21 Date Exported: 06/29/21
Plotted By: kyle.volk Parcel Date: N/A Aerial Image: 2019 County NAIP SIDS Elevation Data: Lidar
Horizontal Datum: NAD 1983 StatePlane North Dakota North FIPS 3301 Feet Vertical Datum: NAVD1988
T:\Projects\20800\20862\20862_Exhibit_NW_Tank_Location_2020_03_11.mxd

N W E S

moore engineering, inc.

DELINEATION OF COSTS
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
PLANNING AND EDUCATION
SFN 61801 (10/2021)

DWR Date Received : January 07, 2022

Project:	Water System Improvement District No. 2021
Sponsor:	McLean Sheridan Rural Water District
Contact:	Ann Oberg, Manager
Phone:	701-448-2686
Engineer:	Tom Klabunde, Moore Engineering, Inc.
Phone:	701.751.8381

Total Cost :	$ 4,060,001
Ineligible Cost :	$ -
Eligible Cost :	$ 4,060,001
Local Cost :	$ 1,015,001

Date: January 7, 2022

Cost-Share $
$ 3,045,000

Preconstruction Approved : $ 274,000
Construction : $ 2,771,000

Project Type:	**Cost-share %**
Rural Water - Expansion/Improvement	75%

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share $ *
		Construction Costs						
PART A		**PART A - BASE BID**						
1	3.6%	Mobilization	1	L SUM	120,000.00	$ 120,000	75%	$ 90,000
2	57.9%	Spheroid Tower - 400,000 Gallon	1	L SUM	1,951,650.00	$ 1,951,650	75%	$ 1,463,738
3	0.1%	Water Main - Ductile Iron - 6"	40	LF	75.00	$ 3,000	75%	$ 2,250
4	0.1%	Water Main - Ductile Iron - 10"	20	LF	125.00	$ 2,500	75%	$ 1,875
5	0.4%	Testing Allowance	1	ALLOW	15,000.00	$ 15,000	75%	$ 11,250
6	0.9%	Water Tower - Remove	1	L SUM	30,000.00	$ 30,000	75%	$ 22,500
7	0.1%	Meter Pit Vault - Remove	1	L SUM	5,000.00	$ 5,000	75%	$ 3,750
8	0.2%	Rural Water Line Disconnection	3	EA	2,000.00	$ 6,000	75%	$ 4,500
9	3.0%	Electrical	1	L SUM	100,000.00	$ 100,000	75%	$ 75,000
10	2.3%	Controls Integration	1	ALLOW	75,850.00	$ 75,850	75%	$ 56,888
11	3.4%	Coating Inspection and Testing	1	ALLOW	115,000.00	$ 115,000	75%	$ 86,250
ALT 2	0.0%					$ -	75%	$ -
1	4.9%	NSF 600 Coatings	1	L SUM	165,000.00	$ 165,000	75%	$ 123,750
PART B	0.0%					$ -	75%	$ -
1	0.3%	Testing Allowance	1	ALLOW	10,000.00	$ 10,000	75%	$ 7,500
2	1.7%	Mobilization	1	L SUM	58,000.00	$ 58,000	75%	$ 43,500
3	0.2%	Traffic Control	1	L SUM	6,000.00	$ 6,000	75%	$ 4,500
4	0.1%	Storm Water Management	1	L SUM	5,000.00	$ 5,000	75%	$ 3,750
5	0.1%	Fiber Rolls 6In	1000	LF	4.00	$ 4,000	75%	$ 3,000
6	0.0%	Remove Fiber Rolls 6In	1000	LF	1.00	$ 1,000	75%	$ 750
7	0.3%	Fence Barbed Wire 4 Strand	600	LF	15.00	$ 9,000	75%	$ 6,750
8	0.1%	Remove Existing Fence	250	LF	7.00	$ 1,750	75%	$ 1,313
9	0.8%	Water Main - 6"	420	LF	63.00	$ 26,460	75%	$ 19,845
10	3.8%	Water Main - 8"	1800	LF	72.00	$ 129,600	75%	$ 97,200
11	1.1%	Directional Drill - 8"	460	LF	78.00	$ 35,880	75%	$ 26,910
12	0.4%	Water Main - 10"	150	LF	86.00	$ 12,900	75%	$ 9,675
13	0.9%	Gate Valve & Box - 6"	10	EA	2,950.00	$ 29,500	75%	$ 22,125
14	0.7%	Gate Valve & Box - 8"	6	EA	3,900.00	$ 23,400	75%	$ 17,550
15	0.2%	Gate Valve & Box - 10"	1	EA	6,800.00	$ 6,800	75%	$ 5,100
16	0.3%	Install Hydrant - 6" (Owner Provided)	4	EA	2,500.00	$ 10,000	75%	$ 7,500
17	0.2%	Bollard	6	EA	1,200.00	$ 7,200	75%	$ 5,400
18	0.2%	Sump Discharge Line & Chamber	1	L SUM	6,000.00	$ 6,000	75%	$ 4,500
19	0.3%	Pipe Conduit 18In-Storm Drain	180	LF	49.00	$ 8,820	75%	$ 6,615
20	0.0%	End Sect Corr Steel .064In 18In	6	EA	250.00	$ 1,500	75%	$ 1,125
21	0.2%	Subgrade Preparation-Type A-12In	1650	SY	3.50	$ 5,775	75%	$ 4,331
22	0.1%	Geosynthetic Material Type R1	1650	SY	3.00	$ 4,950	75%	$ 3,713
23	0.5%	Aggregate Surface Course Cl 5	660	TON	26.00	$ 17,160	75%	$ 12,870
24	0.1%	Valley Gutter Special	15	SY	300.00	$ 4,500	75%	$ 3,375
25	0.2%	Common Excavation-Type A (P)	1600	CY	4.50	$ 7,200	75%	$ 5,400
26	0.2%	Topsoil Strip & Spread	5000	SY	1.25	$ 6,250	75%	$ 4,688
27	0.1%	Reshaping Ditch	750	LF	4.00	$ 3,000	75%	$ 2,250
28	0.4%	Topsoil-Imported - 3"	300	CY	40.00	$ 12,000	75%	$ 9,000
29	0.6%	Seeding Class III	12000	SY	1.75	$ 21,000	75%	$ 15,750
		Construction Sub-Total				$ 3,063,645	75%	$ 2,297,734
	10.0%	**Contingency**				$ 306,056	75%	$ 229,542
	83.0%	**Construction Total**				$ 3,369,701	75%	$ 2,527,275
		Preconstruction Costs						
1	0.3%	Geotechnical Investigations	1	LS	10,000.00	$ 10,000	75%	$ 7,500
2	10.4%	Engineering-Design & Bidding Services	1	LS	350,300.00	$ 350,300	75%	$ 262,725
3	0.0%		0		-	$ -	75%	$ -
4	0.0%		0		-	$ -	75%	$ -
5	0.0%		0		-	$ -	75%	$ -
	8.9%	**Preconstruction Total**				$ 360,300	75%	$ 270,225
		Construction Engineering Costs						
1	3.6%	Construction Eng	1	LS	120,000.00	$ 120,000	75%	$ 90,000
2	5.0%	Construction Eng-RPR Inspection/Stakir	1	LS	170,000.00	$ 170,000	75%	$ 127,500
3	0.4%	Post Construction/Warranty Services	1	LS	15,000.00	$ 15,000	75%	$ 11,250
4	0.0%		0		-	$ -	75%	$ -
5	0.0%		0		-	$ -	75%	$ -
	7.5%	**Construction Engineering Total**				$ 305,000	75%	$ 228,750
		Other Eligible Costs						
1	0.1%	Legal and Advertising	1	LS	5,000.00	$ 5,000	75%	$ 3,750
2	0.5%	Property Acquisitions	1	LS	20,000.00	$ 20,000	75%	$ 15,000
3	0.0%		0		-	$ -	75%	$ -
4	0.0%		0		-	$ -	75%	$ -
5	0.0%		0		-	$ -	75%	$ -
	0.6%	**Other Eligible Total**				$ 25,000	75%	$ 18,750
		In-eligible Costs						
1	0.0%					$ -	0%	$ -
2	0.0%				-	$ -	0%	$ -
3	0.0%				-	$ -	0%	$ -
4	0.0%				-	$ -	0%	$ -
	0.0%	**Other Ineligible Total**				$ -	0%	$ -
	100.0%	**Total**				$ 4,060,001		
		Eligible Total				$ 4,060,001	75%	$ 3,045,000
		Federal or State Funds That Supplant Costs				$ -		
		Eligible Cost Total				$ 4,060,001	75%	$ 3,045,000

* The Cost-share estimate is purely for planning and informational purposes only and does not, in any way, guarantee a financial commitment to any degree, from the State Water Commission.

Life Cycle Cost Analysis Review

Sponsor: McLean-Sheridan Rural Water District
Project Title: Water System Improvement District No. 2021 **Date:** January 19, 2022

Explanation of Alternatives:

There are no Alternatives provided. This LCCA only reflects the request to fund a 400,000 gallon elevated storage facility.

Inputs:

	Water Tower			
Users Served	239			
Construction Cost	$4,060,200			
Annual O & M	$15,000			

Details:

New 400,000 gallon water tower at a new location.

Model Function:

The economic model appears to have functioned properly. The results are deemed to be reliable and repeatable with the inputs provided by the project sponsor.

LCCA Model Results:

Scenario Analysis - Present Value Life Cycle Cost Summary

Present Value	Water Tower			
Capital Costs	$4,060,000			
O&M	$422,000			
Repair, Rehab, Replacement	$1,121,000			
Salvage Value	$428,000			
Total PVC	**$5,175,000**			
PV Cost Per User	**$21,653**			

Current Water Rate (Cost Per 5000g)		**$121**
Comparable Water Rate		**$75**
Total Municipal Service Users		239
Cost-Share Percent		75%
	Local Share	$1,015,000
	Other Funding	$0
	Total Local	$1,015,000
Payment Per User With Cost-Share		**$21.48**
	Local Share	$4,060,000
	Other Funding	$0
	Total Local	$4,060,000
Payment Per User Without Cost-Share		**$85.94**

Explanation of Results:

The PVC cost of this tower is $5,175,000. The sponsors did not provide water rates. For this project, water storage costs each user $21,653, which equates to $21.48 per month if the project is funded at the 75% rural system rate. Additional questions after reviewing this project are proposed in the Other Comments section below.

	Year		Annual Population Growth Rate	Average Annual Population Increase/Decrease
ND Dept. of Commerce	2010	2020		
Population & Trends	380	351	-0.8%	-3

Other Comments:

The application materials suggest McLean-Sheridan Rural Water needs approximately 150,000 gallons for excess-supplemental storage in case A and B zones need additional pressure. They also suggest the city needs 180,000 gallons for fire flow storage. If both are excess storage, it appears as though the city and rural systems could cooperatively leverage each others' excess, rather than adding them together and creating nearly 330,000 gallons (5X peak demand) of storage. Redundant storage seems inefficient, whereas shared excess storage could be a more efficient scenario.

LCCA Version Version 1.2021-7.26

CAPITAL IMPROVEMENT PLAN (CIP)
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
PLANNING AND EDUCATION DIVISION
SFN 61938 (7/2021)

System: McLean-Sheridan Rural Water District - McClusky Tower - Water System Improvement District No. 2021
Date: 01/07/22

Population: 360
Users: 239

ASSET	UNITS	UNIT COST	QTY	RESERVE REPLACEMENT %	REPLACEMENT COST	AVERAGE LIFE (YRS)	ANNUAL RESERVE	MONTHLY RESERVE	MONTHLY RESERVE PER CUSTOMER
Existing Project CIP Costs									
Asset - Water Main	Feet	$10.00	34,882	75.00%	$261,615	50	$5,232	$436	$1.82
Asset - Water Tower 70,000 GAL	EA	$600,000.00	1	75.00%	$450,000	50	$9,000	$750	$3.14
SUBTOTAL Existing CIP Costs					$711,615		$14,232	$1,186	$4.96
New Project CIP Costs									
Water Tower	EA	$1,951,650.00	1	75.00%	$1,463,738	50	$29,275	$2,440	$10.21
Water Main	Feet	$72.38	2830	75.00%	$153,627	50	$3,073	$256	$1.07
SUBTOTAL New CIP Costs					$1,617,364		$32,347	$2,696	$11.28
TOTAL Existing and New Project CIP					$2,328,979		$46,580	$3,882	$16.24

	TOTAL RESERVES	ANNUAL RESERVE	MONTHLY RESERVE	MONTHLY RESERVE PER CUSTOMER
Current:	$500,000	$24,000	$2,000.00	$8.37
Adjustment:	$1,828,979	$22,580	$1,882	$7.87

	Monthly Ave Gal/user	Monthly $/kgal
Required	5,000	$3.25
Current	5,000	$1.67
Adjustment	5,000	$1.57

Report Prepared by (Title): _____

Date: _____

Notes:

Instructions
1 - Fill in colored items
2 - Enter Existing asset project CIP costs
3 - Enter New asset project CIP costs
4 - Enter current total reserves and annual reserve

DWR Date Received : 1/7/22
Water Development Plan: Yes - 2021
Plan Priority: Moderate

I4

20301 - TMBC Thorne Reservoir and Pump Station

Application Details

Funding Opportunity:
19214-2022 Infrastructure Request

Funding Opportunity Due Date: Dec 31, 2022 3:00 PM

Program Area:
Funding for Infrastructure in ND - FIND

Status: Under Review

Stage: Final Application

Initial Submit Date: Jan 7, 2022 4:04 PM

Initially Submitted By: Daniel Heitzman

Last Submit Date:

Last Submitted By:

Contact Information

Primary Contact Information

Active User*: Yes

Type: External User

Name: Mr. (Salutation) Daniel (First Name) Dean (Middle Name) Heitzman (Last Name)

Title: Project Manager

Email*: dheitzman@houstoneng.com

Address*: 807 Browning Ave

Organization Information

Status*: Approved

Name*: Rolette County

Organization Type*: County Government

Tax Id:

Organization Website:

Address*: 102 2nd St. NE
PO Box 939

Bismarck North Dakota
City State/Province

58503
Postal Code/Zip

Phone*: 701-391-5046 Ext.
Phone
###-###-####

Fax: *###-###-####*

Comments:

Rolla North Dakota
City State/Province

58367-0000
Postal Code/Zip

Phone*: 701-477-5665 Ext.
###-###-####

Fax: *###-###-####*

Benefactor:

Vendor ID:

PeopleSoft Supplier ID:

Comments:

Location Code:

SAM.gov Entity ID:

SAM.gov Name:

SAM.gov Entity ID Expiration Date:

State Issued ID:

Category #:

Year Begin:

Year Closed:

NCES#:

Restricted Indirect Cost Rate: 0.0%

Unrestricted Indirect Cost Rate: 0.0%

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study Name*: TMBC Thorne Reservoir and Pump Station

Sponsor(s)*: Funding for Infrastructure in ND

County*: Rolette

City*: Belcourt

Description of Request*: New

If Study, What Type:

If Project/Program, What Type: Rural Water Supply

Jurisdictions/Stakeholders Involved*:

Turtle Mountain Public Utilities Commission Rolette County

Specific Needs Addressed By the Project, Program or Study*:

There are several issues on the water supply side of the Turtle Mountain Water System that this project will address: Pretreatment station for Water Treatment Plant (oxidation) Raw water storage, Well head security and safety Well head pressure equalization (operations and system efficiency) Water quality (blending of water sources) Please see Engineering Report for full description

Description of Problem or Need and How Project Addresses that Problem or Need.

Description of Problem*:

Disinfection byproduct precursors must be removed to remain in EPA compliance. The Thorne BPS will inject oxidant upstream of the WTP as pretreatment. Pressure and operational failures between the 19 wellheads are becoming more burdensome and frequent. The partially buried concrete reservoir will provide 500,000 gal. storage which will also provide pressure equalization and blending of all water sources which will help simplify the treatment process at the water treatment plan.

For this project,

Choose City, County or Water District*:	County
What is the Current Estimated Population?*:	14511
For this project,	
What is the Benefited Population?*:	12000
Has Feasibility Study Been Completed?*:	Ongoing
Has Engineering Design Been Completed?*:	Yes
Have Assessment Districts Been Formed?*:	N/A
Have Land or Easements Been Acquired?*:	Yes
Has Sediment Analysis For Reconstruction Of An Existing Drain Been Completed?*:	N/A
Extraterritorial Jurisdiction?*:	N/A
Have You Applied For Any Federal Permits?*:	N/A
If Yes or Ongoing, Please Explain (include type/number):	
Have You Applied for any State Permits?*:	N/A
If Yes or Ongoing, Please Explain (include type/number):	

Have You Applied for any Local Permits?*: N/A

If Yes or Ongoing, Please Explain (include type/number):

Briefly explain the level of review the Project/Program/Study has undergone.

Level Review*:

Federal review from USDA, US Bureau of Reclamation, and Indian Health Service

Do You Expect Any Obstacles To Implementation (i.e. problems with land acquisition, permits, funding, local opposition, environmental concerns, etc.)?

Obstacles*: No

Have you received, or do you anticipate receiving federal funding?

Federal Funding*: Yes

Federal Funding Contact: Christy Wiltse
First Name Last Name

Federal Funding Contact Number: 701-852-1754

Federal Funding Email: christy.wiltse@usda.gov

Implementation Timelines

Study*: 06/2019
Month/Year (00/0000)

Design*: 12/2019
Month/Year (00/0000)

Bid*: 09/2020
Month/Year (00/0000)

Construction Start*: 03/2021
Month/Year (00/0000)

Construction Completion*: 07/2022
Month/Year (00/0000)

Explain Additional Timeline Issues*:

No timeline issues anticipated other than regular supply chain issues. Electronic components have been

delayed on the concurrent WTP project. Nothing about delays have been indicated by the contractor at this time.

Certification

Submitted by*: Daniel Heitzman 01/04/2022
First Name Last Name Date

Address*: 3712 Lockport St.
Address Line 1

Address Line 2

Bismarck North Dakota 58503-0000
City State Zip Code

Telephone Number*: 701-323-0200

Sponsor Email*: tmpuc@utma.com

Consulting Engineer*: Dan Heitzman

Engineer Telephone Number*: 701-391-5046

Engineer Email*: dheitzman@houstoneng.com

This section needs to be completed by the project sponsor.
I certify that, to the best of my knowledge, the provided information is true and accurate.

Certify*: Yes

Authorized Individual*: Kenneth Azure 01/04/2022
First Name Last Name Date

Documentation

Documentation

Project Specific Map
(Including an inset map of location within state.)
CLICK HERE **to see examples.**

Project Specific Map*: Appendix A-Project Location Map.pdf

Are You Seeking Department of Water Resources Cost-Share?*: Yes

CLICK HERE **for SFN 61801 Delineation of Costs.**

Delineation of Costs SFN 61801:	sfn_61801_delineation_of_cost.xlsx
Type of Request:	Construction
Signed Plans and Specifications For Bidding:	100_THORNE_REBID_SET.pdf
Water Supply Projects?:	Yes

CLICK HERE **for Life Cycle Cost Analysis Instructions.**

Life Cycle Cost Analysis:	life_cycle_cost_analysis_worksheet 3.xlsx

CLICK HERE **for SFN 61938 Capital Improvement Plan.**

Capital Improvement Plan SFN 61938:	sfn_61938_capital_improvement_plan 8.xlsx
Rural Flood Control?:	No
Drain Reconstructions?:	No
Flood Recovery Property Acquisition?:	No
Community Flood Control, Rural Flood Control, Bank Stabilization, or Snag & Clear Project With Total Cost of $200,000 or More?:	No
Feasibility/Engineering Study for the Proposed Project or Other Applicable Documents:	Yes
Feasibility/Engineering Study Material or Other Applicable Document:	3 - Thorne_Res_BPS_PER_COMPLETE_4-8-2019.pdf
Engineering Total Cost of $35,000 or More?:	No

Sources

Funding Amount Requested

State FY1	State FY2	Beyond State FY2	Total Cost Source	Type	Term	Interest Rate
$1,136,791.00	$0.00	$0.00	$1,136,791.00		0.00	0.00
$1,136,791.00	**$0.00**	**$0.00**	**$1,136,791.00**			

Other Funding Sources

Type	Source	Grant or Loan	State FY1	State FY2	Beyond State FY2	Total Other Sources
Federal	Indian Health Service	Grant	$1,700,000.00	$0.00	$0.00	$1,700,000.00
Federal	USDA RD	Grant	$2,667,000.00	$0.00	$0.00	$2,667,000.00
Local	TMBC	N/A	$376,417.00	$0.00	$0.00	$376,417.00
			$4,743,417.00	**$0.00**	**$0.00**	**$4,743,417.00**

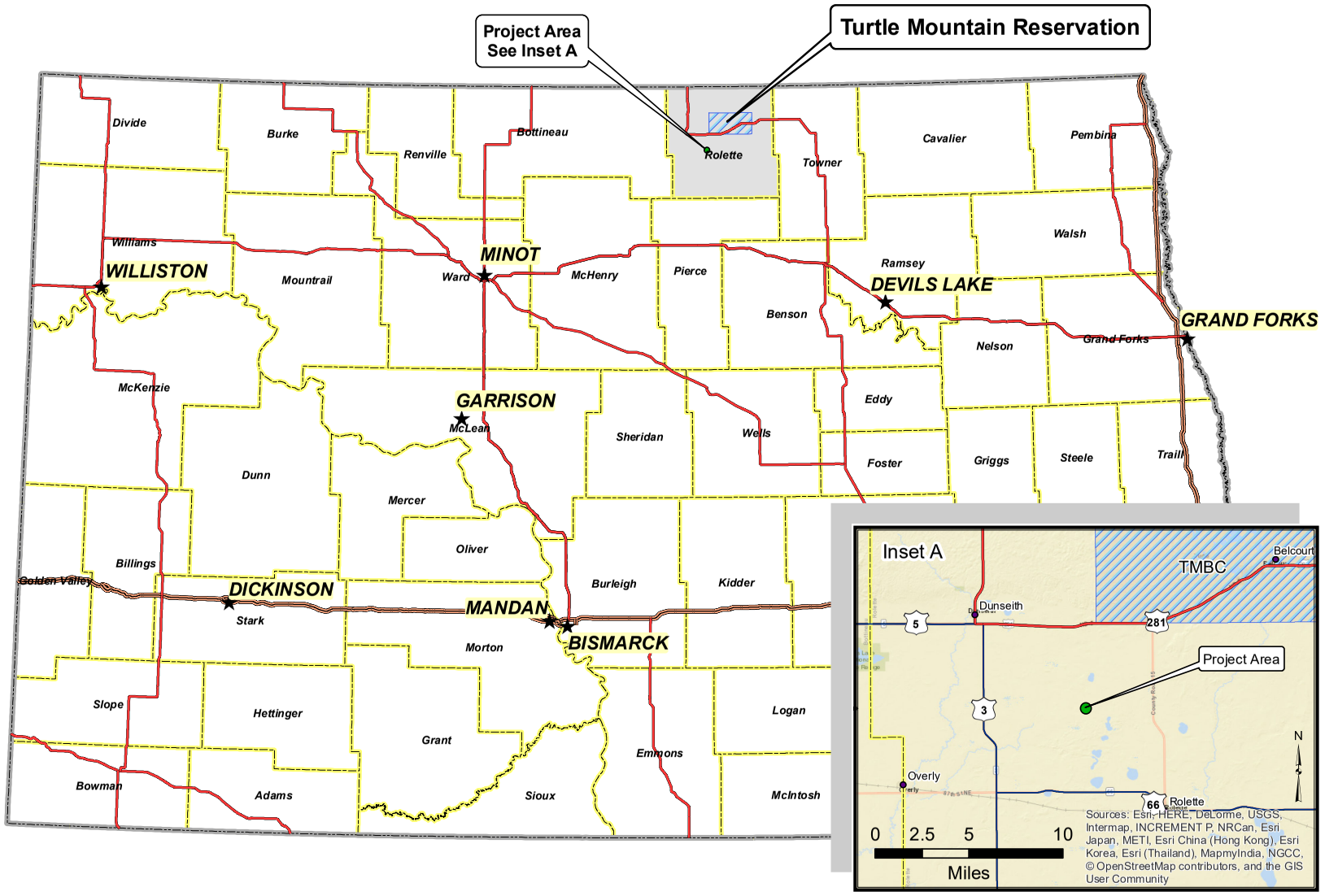
Project Total

Current Requested Amount: $1,136,791.00

Other Funding Sources: $4,743,417.00

Total Project: $5,880,208.00

Turtle Mountain Band of Chippewa Water System Improvements Highway 43 Corridor Phase III Improvements



Data Source: NRCS & ND GIS Hub

Legend

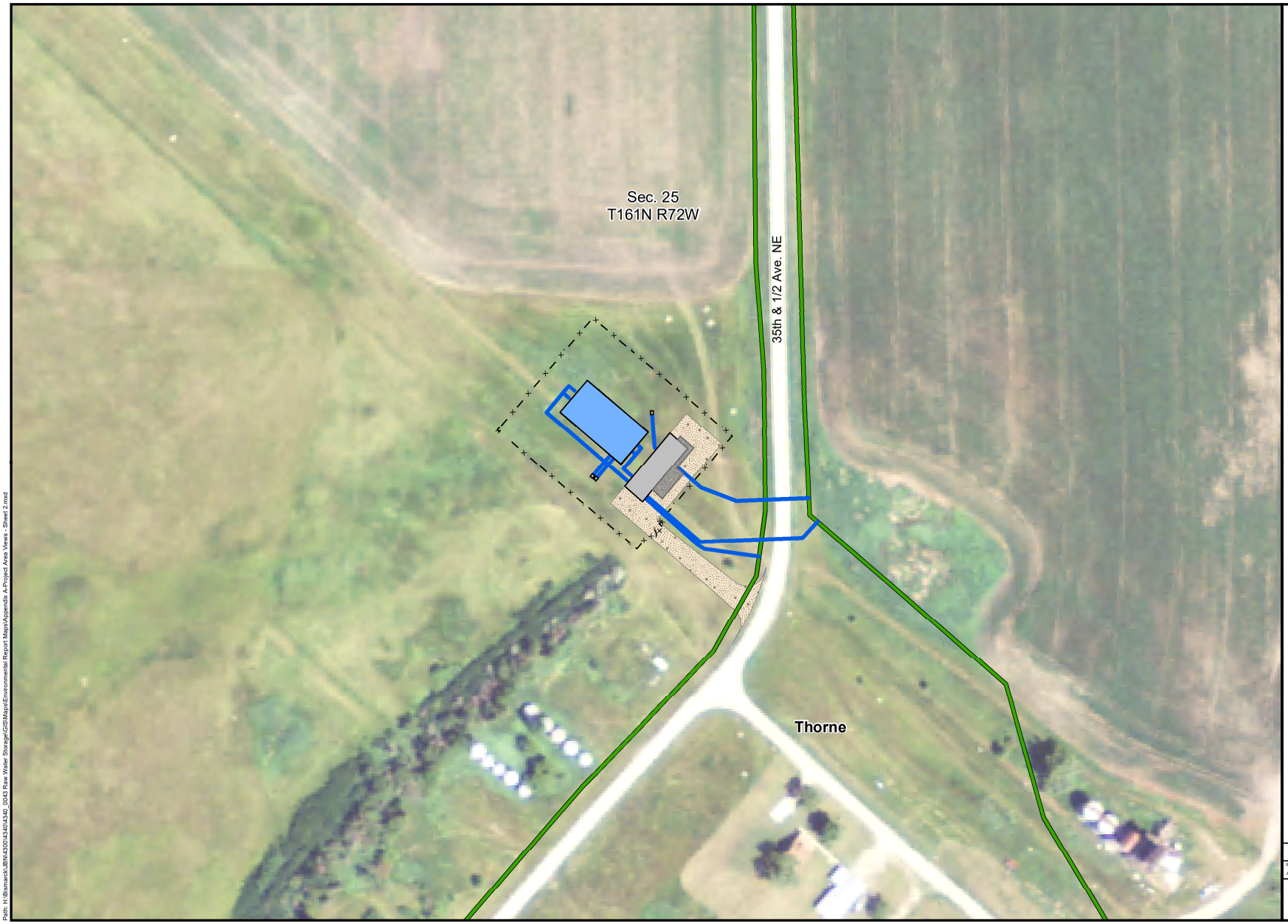
- Cities
- Federal Highway
- Interstate
- State Highway
- Turtle Mountain
- State Border
- Counties

N

APPENDIX A - PROJECT LOCATION MAP

Scale:	Drawn By:	Checked By:	Project No.	Date:	Sheet:
AS SHOWN	MS	DDH	4340.043	3/14/2019	1 of 2

Houston Engineering Inc.
Bismarck
P: 701.323.0200
F: 701.323.0300



Turtle Mountain Band of Chippewa Water System Improvements
Highway 43 Corridor Phase III Improvements

Legend

- Proposed .5 MG Reservoir
- Proposed Pump Station
- Proposed Fence
- Proposed Watermain
- Existing Pipeline

N

0 100 200

Feet

Data Source: ND GIS Hub

APPENDIX A - PROJECT AREA VIEWS

Scale:	Drawn By:	Checked By:	Project No.:	Date:	Sheet:
AS SHOWN	MS	DDH	4340.043	3/13/2019	2 of 2

Houston Engineering Inc.
Bismarck
P: 701.323.0200
F: 701.323.0300

DELINEATION OF COSTS
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
PLANNING AND EDUCATION
SFN 61801 (10/2021)

DWR Date Received : January 07, 2022

Project:	Thorne Reservoir, Pump Station and
Sponsor:	Rolette County
Contact:	Eldon Moors, Jr.
Phone:	701-477-6159
Engineer:	Houston Engineering, Inc
Phone:	701-323-0200

Total Cost :	$ 5,880,334
Ineligible Cost :	$ 4,367,000
Eligible Cost :	$ 1,513,334
Local Cost :	$ 4,745,334

Date: January 6, 2022

Cost-Share $	
$	1,135,000
Preconstruction :	$ -
Construction :	$ 1,135,000

Project Type:	**Cost-share %**
Water Supply - Primary Standards Improvement	75%

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share $ *
		Construction Costs						
1	3.6%	Mobilization	1	LS	167,535.00	$ 167,535	75%	$ 125,651
2	0.1%	Traffic Control	1	LS	5,283.00	$ 5,283	75%	$ 3,962
3	1.4%	Earthwork	2925	CY	22.00	$ 64,350	75%	$ 48,263
4	0.0%	Fabric	35	SY	3.00	$ 105	75%	$ 79
5	0.4%	Concrete - Cast-In-Place	35	CY	530.00	$ 18,550	75%	$ 13,913
6	0.4%	Connection to Existing Line	4	EA	4,950.00	$ 19,800	75%	$ 14,850
7	1.5%	Open Cut Cased Road Crossing	2	EA	35,000.00	$ 70,000	75%	$ 52,500
8	1.5%	Water Main 20 in	231	LF	310.00	$ 71,610	75%	$ 53,708
9	2.8%	Water Main 16 in	622	LF	210.00	$ 130,620	75%	$ 97,965
10	0.9%	Water Main 10 in	285	LF	140.00	$ 39,900	75%	$ 29,925
11	0.2%	Water Main 4 in	70	LF	125.00	$ 8,750	75%	$ 6,563
12	0.9%	Gate Valve 20 in	2	EA	21,000.00	$ 42,000	75%	$ 31,500
13	0.8%	Gate Valve 16 in	3	EA	13,000.00	$ 39,000	75%	$ 29,250
14	0.1%	Gate Valve 10 in	1	EA	5,100.00	$ 5,100	75%	$ 3,825
15	0.0%	Gate Valve 4 in	1	EA	2,200.00	$ 2,200	75%	$ 1,650
16	0.1%	Waste Collection Manhole	1	LS	6,300.00	$ 6,300	75%	$ 4,725
17	0.6%	Flap Gate	1	LS	28,500.00	$ 28,500	75%	$ 21,375
18	0.1%	Fiber Rolls	978	LF	4.00	$ 3,912	75%	$ 2,934
19	0.0%	Silt Fence	328	LF	5.00	$ 1,640	75%	$ 1,230
20	22.6%	Reservoir and Storage - Concrete	1	LS	1,055,800.00	$ 1,055,800	75%	$ 791,850
21	13.9%	Pump Station	1	LS	646,200.00	$ 646,200	75%	$ 484,650
22	19.6%	Mechanical	1	LS	914,400.00	$ 914,400	75%	$ 685,800
23	14.4%	Electrical	1	LS	669,600.00	$ 669,600	75%	$ 502,200
24	4.9%	Industrial Coatings	1	LS	228,000.00	$ 228,000	75%	$ 171,000
25	0.0%		0		-	$ -	75%	$ -
26	0.0%		0		-	$ -	75%	$ -
		Construction Sub-Total				$ 4,239,155	75%	$ 3,179,366
	10.0%	**Contingency**				$ 424,042	75%	$ 318,031
	79.3%	**Construction Total**				$ 4,663,197	75%	$ 3,497,397
		Preconstruction Costs						
27	0.0%		0		-	$ -	75%	$ -
28	0.0%		0		-	$ -	75%	$ -
29	0.0%		0		-	$ -	75%	$ -
30	0.0%		0		-	$ -	75%	$ -
31	0.0%		0		-	$ -	75%	$ -
	0.0%	**Preconstruction Total**				$ -	75%	$ -
		Construction Engineering Costs						
32	0.0%		0		-	$ -	75%	$ -
33	0.0%		0		-	$ -	75%	$ -
34	0.0%		0		-	$ -	75%	$ -
35	0.0%		0		-	$ -	75%	$ -
36	0.0%		0		-	$ -	75%	$ -
	0.0%	**Construction Engineering Total**				$ -	75%	$ -
		Other Eligible Costs						
37	1.4%	Pumps	1	LS	80,410.00	$ 80,410	75%	$ 60,308
38	0.8%	Chemical Feed Equipment	1	LS	48,910.00	$ 48,910	75%	$ 36,683
39	0.4%	Base Gravel	1	LS	25,215.00	$ 25,215	75%	$ 18,911
40	0.4%	Fire Hydrants	1	LS	21,882.06	$ 21,882	75%	$ 16,412
41	3.4%	Electrical Service	1	LS	200,000.00	$ 200,000	75%	$ 150,000
	6.4%	**Other Eligible Total**				$ 376,417	75%	$ 282,313
		In-eligible Costs						
42	1.4%	Administrative	1	LS	84,783.10	$ 84,783	0%	$ -
43	2.9%	TERO	1	LS	169,566.20	$ 169,566	0%	$ -
44	10.0%	Engineering	1	LS	586,371.00	$ 586,371	0%	$ -
45	0.0%		0		-	$ -	0%	$ -
	14.3%	**Other Ineligible Total**				$ 840,720	0%	$ -
	100.0%				**Total**	$ 5,880,334		
					Eligible Total	$ 5,039,614	75%	$ 3,779,710
					Federal or State Funds That Supplant Costs	$ 3,526,280	IHS and USDA RD	
					Eligible Cost Total	$ 1,513,334	75%	$ 1,135,000

* The Cost-share estimate is purely for planning and informational purposes only and does not, in any way, guarantee a financial commitment to any degree, from the State Water Commission.

Life Cycle Cost Analysis Review

Sponsor: Rolette County
Project Title: TMBC Thorne Reservoir and Pump Station **Date:** January 17, 2022

Explanation of Alternatives:

New Reservoir, Pump Station with Chemical Pretreatment (Preferred) - Installation of 500,000 gallon, partially buried, rectangular concrete reservoir.

Chemical Pretreatment Building Only - Install 1,500 sq ft chemical feed facility in the same location as the New Reservoir alternative above.

Do Nothing – Do Nothing

Regionalization - No "Regionalization" option is provided due to Tribal leadership's preference to supply water to its members.

Inputs:

	New Reservoir, Pump Station with Chemical Pretreatment (Preferred)	Chemical Pretreatment Building Only	Do Nothing	Regionalization
Users Served	3500			
Construction Cost	$5,880,200	$2,352,800	$0	$0
Annual O & M	$87,162	$25,276	$0	$0

Details:

New Reservoir, Pump Station with Chemical Pretreatment (Preferred) - Installation of 500,000 gallon, partially buried, rectangular concrete reservoir, and install 3,000 sq ft adjacent pump station with chemical feed station and reservoir bypass. The project also includes upgrades to well pump VFDs and meter vaults to allow for new pumping scenarios, site work, electrical, HVAC, and system interconnections.

Chemical Pretreatment Building Only - Install 1,500 sq ft chemical feed facility in the same location as the New Reservoir alternative above. The building will be sized to house chemical tanks, skids, and process piping required to merge two influent raw water sources.

Do Nothing – Do Nothing

Regionalization - No "Regionalization" option is provided due to Tribal leadership's preference to supply water to its members.

Model Function:

The economic model appears to have functioned properly. The results are deemed to be reliable and repeatable with the inputs provided by the project sponsor.

LCCA Model Results:

Scenario Analysis - Present Value Life Cycle Cost Summary

Present Value	New Reservoir, Pump Station with Chemical Pretreatment (Preferred)	Chemical Pretreatment Building Only	Do Nothing	Regionalization
Capital Costs	$3,920,000	$2,353,000	$0	$0
O&M	$2,450,000	$709,000	$0	$0
Repair, Rehab, Replacement	$3,070,000	$1,017,000	$0	$0
Salvage Value	$339,000	$206,000	$0	$0
Total PVC	**$9,101,000**	**$3,873,000**	$0	$0
PV Cost Per User	**$2,600**	**$1,107**	$0	0

Current Water Rate (Cost Per 5000g)		**$27**			
Comparable Water Rate		**$47**			
Total Municipal Service Users		3,500	3,500		
Cost-Share Percent		60%	60%		
	Local Share	$1,568,000	$941,200		
	Other Funding	$0	$0		
	Total Local	$1,568,000	$941,200		
Payment Per User With Cost-Share		**$2.27**	**$1.36**		
	Local Share	$3,920,000	$2,353,000		
	Other Funding	$0	$0		
	Total Local	$3,920,000	$2,353,000		
Payment Per User Without Cost-Share		**$5.67**	**$3.40**		

Explanation of Results:

The net present value of the preferred New Reservoir alternative is $9,101,000, which is $5,228,000 more than the Chemical Pretreatment alternative. The present value per user of the preferred alternative is $2,600, which equates to $2.27 per user per month with SWC cost-share participation and $5.67 without SWC participation.

	Year		Annual Population Growth Rate	Average Annual Population Increase/Decrease	
ND Dept. of Commerce	2010	2020			
Population & Trends	13,937	14,165	0.2%	23	Rolette County

Other Comments:

The alternative appears to be a downscaling of the project versus an alternative to addressing a problem statement.

LCCA Version Version 1.2021-7.26

CAPITAL IMPROVEMENT PLAN (CIP)
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
PLANNING AND EDUCATION DIVISION
SFN 61938 (7/2021)

System: Rolette County - TMBC Thorne Reservoir and Pump Station
Date: 01/07/22

Population: 13,500
Users: 5,400

ASSET	UNITS	UNIT COST	QTY	RESERVE REPLACEMENT %	REPLACEMENT COST	AVERAGE LIFE (YRS)	ANNUAL RESERVE	MONTHLY RESERVE	MONTHLY RESERVE PER CUSTOMER
Existing Project CIP Costs									
Water Main	Feet	$10.00	528,000	75.00%	$3,960,000	30	$132,000	$11,000	$2.04
Service Line	Feet	$5.00	352100	75.00%	$1,320,375	25	$52,815	$4,401	$0.82
Valves	EA	$5,000.00	475	75.00%	$1,781,250	30	$59,375	$4,948	$0.92
PRV Vaults	EA	$25,000.00	5	75.00%	$93,750	40	$2,344	$195	$0.04
ARV Vaults	EA	$20,000.00	40	75.00%	$600,000	40	$15,000	$1,250	$0.23
Reservoirs	EA	$2,000,000.00	4	75.00%	$6,000,000	40	$150,000	$12,500	$2.31
Booster Stations	EA	$800,000.00	2	75.00%	$1,200,000	40	$30,000	$2,500	$0.46
SCADA / Controls	EA	$40,000.00	1	75.00%	$30,000	25	$1,200	$100	$0.02
Raw Water Pipe	Feet	$12.00	63000	75.00%	$567,000	30	$18,900	$1,575	$0.29
Wells	EA	$40,000.00	19	75.00%	$570,000	30	$19,000	$1,583	$0.29
WTP	LS	$13,000,000.00	1	50.00%	$6,500,000	35	$185,714	$15,476	$2.87
			SUBTOTAL Existing CIP Costs		$22,622,375		$666,348	$55,529	$10.28
New Project CIP Costs									
Reservoir	LS	$1,055,800.00	1	50.00%	$527,900	50	$10,558	$880	$0.16
Pump Station	LS	$874,200.00	1	50.00%					
Electrical	LS	$669,600.00	1	50.00%					
			SUBTOTAL New CIP Costs		$527,900		$10,558	$880	$0.16
			TOTAL Existing and New Project CIP		$23,150,275		$676,906	$56,409	$10.45

	TOTAL RESERVES	ANNUAL RESERVE	MONTHLY RESERVE	MONTHLY RESERVE PER CUSTOMER
Current:	$2,400,000	$69,000	$5,750.00	$1.06
Adjustment:	$20,750,275	$607,906	$50,659	$9.38

	Monthly Ave Gal/user	Monthly $/kgal
Required	6,600	$1.58
Current	6,600	$0.16
Adjustment	6,600	$1.42

Report Prepared by (Title): Dan Heitzman (Project Manager)
Date: 1/7/22

Notes:

Instructions
1 - Fill in colored items
2 - Enter Existing asset project CIP costs
3 - Enter New asset project CIP costs
4 - Enter current total reserves and annual reserve

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Other Cost-Share Policy-Related Considerations - January 2022 SWC Meeting		
Issue	**Description**	**Notes**
Non-federal Cost-Share Percentages	Current policy requires cost-share percentages to be readjusted to 50% of the non-federal share in cases where there is federal cost-share participation in flood control or retention projects. It has been discussed that this practice might discourage sponsors from seeking federal cost-share in some circumstances.	It has been discussed that cost-share percentages remain the same - regardless of federal involvement.
Application Procedures/Timing For LCCA & EA	The amount of time available to properly review LCCA and EA is sometimes quite short for the amount of technical attention required. This, combined with LCCA and EA being submitted with minimal and/or subpar information in some cases, requiring multiple follow-up contacts, creates a very challenging situation for staff to prepare necessary reports for SWC members. In addition, with the recently implemented requirement to include LCCA with pre-construction requests and updates for construction, the number of LCCA to be reviewed has doubled.	Options: 1) Do not address at this time. 2) Revert back to $1M threshold to reduce the number of EAs being processed. 3) Require *completed* EA and LCCA with applications that have been approved by staff.
Capital Improvement Fund Requirements	The SWC currently requires water supply project sponsors to fill out and provide Capital Improvement Plan SFN 61938. Other project purposes are not currently subject to this requirement. NDCC 61-02-01.4 says "The Commission shall require a water project sponsor to maintain a capital improvement fund from the rates charged customers for future extraordinary maintenance projects as [a] condition of funding an extraordinary maintenance project." Should all project purposes be required to submit proof of a capital improvement fund?	If the intent of existing Century Code is for this requirement to apply to only water supply projects, no further changes are needed.
Contingency Percentages	Project cost estimates provided by sponsors with cost-share applications include the addition of contingencies to account for various unknowns. Currently, the Commission requests contingencies be capped at 10 percent of total project costs when estimating allowable cost-share. This practice is not currently supported by existing policy.	Of note, the Secretary can approve cost-share up to $75,000, which allows adjustments above the 10 percent if needed in the various percentage levels.
Invoice Deadlines	To reduce ongoing challenges with the agency's carryover balance, staff try to encourage project sponsors to request reimbursements in a timelier manner. In some cases, the agency receives invoices that are over two-years old. If invoices were not eligible for reimbursement after a given timeframe, this might encourage more timely requests for reimbursement and reductions in agency carryover balances.	One year would be a starting option for discussion.
Maximum Grant Share	In some instances, project sponsors request, and receive cost-share assistance, from multiple entities. Current policy does not identify a maximum allowable grant percentage from all sources.	The other option is a minimum required contribution percentage from local sponsors.
MSI Rewards	For those communities that have committed to the Governor's Main Street Initiative (MSI), there could be incentives added into policy to reward those communities.	Discussed at December 2021 meeting.
Project Review Requirements & Recommendation Criteria	N.D.C.C. 61-02-14.3 requires project sponsors to provide a progress report to the Commission at least every four years if the term of the project exceeds four years. In addition, HB 1020 will result in a new section of N.D.C.C. 61-02 that will require four-year update projects be presented to the Interim Legislative Water Topics Overview Committee on a quarterly basis. At the Commission's February 2021 meeting, the Commission changed the four-year review requirement to two years, but that has since been deferred in response to the number of reviews that would be required.	Current statute requires reviews after four years - so it is recommended to revert back to that standard. This discussion could also include development of criteria for extension denials or approvals, and the ability of the Director to make decisions for those projects with remaining unpaid balances of $75,000 or less.

Shovel Ready Or Construction Funding Eligible Definition(s)	There is frequent discussion regarding the issue of directing cost-share assistance toward “shovel ready” projects before those that are not “shovel ready.” This issue was largely addressed with the modification of policy to implement a “two-tiered” funding process (pre-construction costs first, followed by construction costs).	Addressed as part of two-tier process. WebGrants will also now require plans and specs prior to sponsors submitting construction requests.
Snag and Clear Benefits In EA	Snagging and clearing projects have not traditionally returned benefit to cost ratios that are greater than one. There has been interest expressed by Commissioners, project sponsors, and consultants, that this be reviewed.	This is more of a technical non-policy related issue, but within discussions related to adjusting the threshold for when EA is required (currently $200K or greater total project cost), that could impact the number of snag and clear projects that are subject to EA requirements.

COST-SHARE POLICY ISSUES REVIEWED DECEMBER 2021

WATER COMMISSION COST-SHARE POLICY ISSUES FOR DISCUSSION - DECEMBER 10, 2021, WORKSHOP

Flood Control, Conveyance, & General Water Purpose Funding Projects		
Issue	**Description**	**Notes**
CLOMR Acquisition	In the past, flood control projects have been delayed while waiting for acquisition of a Conditional Letter of Map Revision (CLOMR) from FEMA. This in turn has resulted in stranded cost-share assets and increased carryover totals. The Commission has more recently asked sponsors to acquire a CLOMR during pre-construction efforts - before cost-share for construction is considered. This practice is not currently supported by existing policy.	Could be addressed at December 2021 SWC meeting. RESOLVED: Sponsors must acquire a CLOMR prior to applying for construction-related cost-share assistance.
HMA Program Requirements	NDDES coordinates distribution of federal Hazard Mitigation Assistance (HMA) program funding in North Dakota. Currently, HMA consists of three mitigation programs that can fund cost effective projects that prevent damages caused by natural hazards – including floods. These programs are the Hazard Mitigation Grant Program (HMGP), Building Resilient Infrastructure and Communities (BRIC), and Flood Mitigation Assistance (FMA). Current SWC policy requires that sponsors seeking cost-share under the Flood Recovery Property Acquisition Program must demonstrate how they are not eligible for federal HMGP to receive SWC funding. Additional discussion pertaining to the BRIC and FMA programs being added to policy might encourage more interest in all HMA programs.	A more efficient approach might be to incentivize through the non-federal cost-share percentage.
Watershed-Level Snag and Clear	Snagging and clearing cost-share requests are submitted by sponsors to cover stretches or segments of rivers. In some cases, this is done to stay under the administrative approval threshold of $75,000, or the economic analysis $200,000 threshold. In addition, there are stretches of rivers that are submitted for cost-share from year-to-year. Interest has been expressed by members of the legislature that snagging and clearing projects be looked at from the perspective of the entire river (a watershed planning approach).	Part of ongoing discussions with existing cost-share requests.
Economic Analysis (EA) & Federal Certification Requirements	The fundamental issue for the Commission to consider - is it the state's role to provide cost-share assistance to protect communities from future flood damages, or is it the state's role to provide cost-share to ensure federally accredited flood protection to avoid forced place flood insurance requirements? Communities seeking to pursue flood damage reduction projects are often doing so to reach compliance with FEMA standards to avoid federal flood insurance requirements. In some cases, they have existing levees, floodwalls, or other flood control works in place that provide physical protection of assets but are insufficient (i.e. federally required freeboard) to meet legacy FEMA mapping standards. When the Commission considers results of an EA in cases when any level of flood control works are already in place, there are two ways that EA could be considered: 1) the existing works are considered to offer their current level of protection, and new benefits are only attributed to demonstrable improvements (this is the standard in EA guidance used by federal agencies); and 2) the improvements are considered a continuation of the original flood control works, and current levels of protection offer no benefits.	Part of ongoing discussions with existing cost-share requests.

Local Assessment Contributions Under Resolutions of Necessity	Rural flood control (drainage) projects that proceed under a "resolution of necessity" must demonstrate that "…the cost of, or obligation for, the cleaning and repair of any drain exceeds the total amount that can be levied by the board in any six-year period, the board shall obtain an affirmative vote of the majority of the landowners as determined by section 61-21-16 before obligating the district for the costs." Though required by statute, current policy does not require that this be confirmed as part of the cost-share application process.	This could be modified as part of the SB 2208 study during interim. Modifications before resolution from that study aren't recommended.

Water Supply Purpose Funding Projects		
Issue	**Description**	**Notes**
Expansion of Municipal Water Systems	There have been concerns raised that cost-share grants directed toward expansion of municipal water supply systems into undeveloped green-space contributes toward longer-term financial burdens on communities to support the growth that accompanies that infrastructure. Under the current Water Commission Project Prioritization Guidance, these types of projects are considered a moderate (higher) priority than improvement projects that could be related to infilling, and main street improvements. Under current cost-share policy, both types of projects would be cost-shared at the same level.	The "Development Calculator," produced by ND Commerce could be a tool used by sponsors with encouragement from DWR to help address this issue. Incentives for infilling and being Main Street Initiative communities are other options for consideration.
Fire Flows	The Water Commission is more frequently being asked to provide cost-share, in part, to address fire flows in communities that are improving or replacing aging infrastructure. This results in increased project costs and cost-share. The fundamental question for this issue - is it the state's role to provide cost-share to support fire flows?	Part of ongoing discussions with existing cost-share requests.

13 Completed life cycle cost analysis worksheet for water supply construction projects. The completed worksheet must include a no action alternative, and up to three additional plausible alternatives - including repair, replacement, and regionalization options. If repair, replacement, and regionalization alternatives are excluded from the life cycle cost analysis, justification must be provided by the project sponsor.

14 A letter of verification from the Bank of North Dakota indicating the sponsor's debt service capacity for Water Infrastruture Revolving Loan Fund or Legacy Infrastructure Loan Fund requests.

15 Additional information as deemed appropriate by the Secretary

Applications for cost-share are separate and distinct from the State Water Commission biennial project information collection effort that is part of the budgeting process and published as the State Water Plan. All local sponsors are encouraged to submit project financial needs for the State Water Plan. Projects not submitted as part of the State Water Plan development process may be held until action can be taken on those that were included during budgeting, unless determined to be an emergency that directly impacts human health and safety or that are a direct result of a natural disaster.

B. PRE-APPLICATION. A pre-application process is allowed for cost-share of assessment projects. This process will require the local sponsor to submit a brief narrative of the project, and a delineation of costs. The Secretary will then review the material presented, make a determination of project eligibility, and estimate the cost-share funding the project may anticipate receiving. A project eligibility letter will then be sent to the local sponsor noting the percent of cost-share assistance that may be expected on eligible items as well as listing those items that are not considered to be eligible costs. In addition, the project eligibility letter will state that the Secretary will recommend approval when all cost-share requirements are addressed. The local sponsor may use the project eligibility letter to develop a project budget for use in the assessment voting process. Upon completion of the assessment vote and all other requirements an application for cost-share can be submitted.

C. REVIEW. Upon receiving an application for cost-share, the Secretary will review the application and accompanying information. If the Secretary is satisfied that the proposal meets all requirements, the local sponsor will be asked to present the application, and the Secretary will provide a recommendation to the State Water Commission for its action. The Secretary's review of the application will include the following items and any other considerations that the Secretary deems necessary and appropriate.

1 Applicable engineering plans;

2 Field inspection, if deemed necessary by the Secretary;

3 The percent and limit of proposed cost-share determined by category of cost-share activity and eligible expenses;

4 Assurance of sustainable operation, maintenance, and replacement of project facilities by the local sponsor;

5 Status of permitting and service area agreements;

B. WATER SUPPLY

1 RURAL AND MUNICIPAL WATER SUPPLY PROJECTS. The State Water Commission supports water supply efforts. The local sponsor may apply for funding, and the application will be reviewed to determine project priority. Debt per capita, water rates and financial need may be considered by the Commission when determining an appropriate cost-share percentage. The Commission reserves flexibility to adjust percentages on a case by case basis, but generally:

Up to 75% cost-share may be provided for:

- Rural Water System Expansions and Improvements
- Connection of communities to a regional system
- Improvements required to meet primary drinking water standards

Up to 60% cost-share may be provided for:

- Municipal Water Supply Expansions and Improvements
- Connection of new rural water customers located within extraterritorial areas of a municipality

Water Depots for industrial use receiving water from facilities constructed using State Water Commission funding or loans have the following additional requirements:

a) Domestic water supply has priority over industrial water supply in times of shortage. This must be explicit in the water service contracts with industrial users.

b) If industrial water service will be contracted, public notice of availability of water service contracts is required when the depot becomes operational.

c) Public access to water on a non-contracted basis must be provided at all depots.

2 FEDERAL MUNICIPAL, RURAL, AND INDUSTRIAL WATER SUPPLY PROGRAM. The Municipal, Rural, and Industrial Water Supply Program, which uses federal funds, is administered according to North Dakota Administrative Code Article 89-12.

3 DROUGHT DISASTER LIVESTOCK WATER ASSISTANCE PROGRAM. This program is to provide assistance with water supply for livestock impacted during drought declarations and is administered according to North Dakota Administrative Code Article 89-11.

C. FLOOD CONTROL. The State Water Commission may provide cost-share for eligible items of flood control projects protecting communities from flooding and may include the repair of dams that provide a flood control benefit. When applicable, project sponsors must first acquire a Conditional Letter of Map Revision (CLOMR) from the United State's Federal Emergency Management Agency prior to applying for construction-related cost-share assistance.

1 FLOOD RECOVERY PROPERTY ACQUISITION PROGRAM. This program is used to assist local sponsors with flood recovery expenses that provide long term flood damage reduction benefits through purchase and removal of structures in areas where flood damage has occurred. All contracted costs directly associated with the acquisition will be considered eligible for cost-share. Contracted costs may include: appraisals, legal fees (title and